KENWOOD

DMC-G7R

PORTABLE MINIDISC RECORDER

INSTRUCTION MANUAL

ENREGISTREUR DE MINI-DISQUE PORTABLE

MODE D'EMPLOI

KENWOOD CORPORATION

ENGLISH

FRANÇAIS

In regard to the power supply

Do not use a power source other than the specially provided AC adaptor or the optional battery case or the optional car battery adaptor.

En ce qui concerne l'alimentation

Ne pas utiliser de source d'alimentation autre que l'adaptateur secteur spécialement fourni, le bloc-batterie en option ou l'adaptateur de batterie de voiture en option.

B60-3590-08 (JA) (K) OC

TINSK0341AFZZ
A9707.0.8MNS.YS

98/12 11 10 9 8 7 6 5 4 3 2 1 97/12 11 10 9 8 7 6

Unpacking

Unpack the unit carefully and make sure that all accessories are put aside so they will not be lost. Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.
We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

Keep this manual handy for future reference.

WARNING NOTICE:

IN MOST CASES IT IS AN INFRINGEMENT OF COPYRIGHT TO MAKE COPIES OF TAPES OR DISCS WITHOUT THE PERMISSION OF THE COPYRIGHT OWNERS. ANYONE WISHING TO SHOULD CONTACT THE MECHANICAL COPYRIGHT PROTECTION SOCIETY LIMITED, OR THE PERFORMING RIGHTS SOCIETY LIMITED.

Before applying power

AC adaptors are designed for operation as follows:

U.S.A. and Canada ..... AC 120 V only

Safety precautions

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

For the U.S.A.

FCC WARNING

This equipment may generate or use radio frequency energy. Changes or modifica equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment may cause harmful interference to radio communications, if it is not installed and used in accordance with the instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.

For CANADA

Canadian IC Compliance Notice

NOTICE: This Class B digital apparatus meets all requirements of the Canadian interference-Caussig Equipment Regulations.

For the U.S.A.

CAUTION:

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

In compliance with Federal Regulations, following are reproductions of labels on, or inside the product relating to laser product safety.

KENWOOD CORPORATION
2967-3, ISHIKAWA-CHO,
HACHIOJI-SHI,
TOKYO, JAPAN

KENWOOD CORP. CERTIFIES THIS EQUIPMENT CONFORMS TO DHHS REGULATIONS NO. 21 CFR 1040.10, CHAPTER I, SUBCHAPTER J.

Location: Bottom Panel

DMC-G7R(K-En)

Contents

Introduction 2
⚠ Before applying power 2
⚠ Safety precautions 2
Contents 4
⚠ IMPORTANT SAFEGUARDS 6
Before operation 8
For pleasant use 9
Names and functions of parts 10

⚠ Power sources 13
Using the AC adaptor 13
Charging the rechargeable battery 13
For use in a car 15

Playback (Basics) 16
Sequential playback from the first track 16
To pause playback 18
To stop playback 18
To turn power off 18
Removing the MiniDisc 19
Using the Unit with Auto Play Canceled 19

Playback (Application) 20
Playback from the desired track (SKIP) 20
Skipping to another track during playback (SKIP) 21
Searching for the desired track (SEARCH) 21
Random playback/ Repeated playback (RANDOM/REPEAT) 22
Changing the tone (BASS BOOST) 23
Connecting to a Stereo Component System or Other Audio Equipment 23
Initiating Fast Play Operation 24
Displaying the Track Name and Disc Name 25

Recording (Preparation) 26
Setting the Date and Time 26
Types of Connections for Recording 28
Connecting Equipment 29

ENGLISH

Recording (Basics) 30
Recording from a Tuner or Microphone (Manual Recording) 30
Synchro Recording from a CD or MiniDisc 32
Synchro Recording from a Microphone (Mike Synchro Record) 34
Making an Additional Recording 36
Listening to the Audio Being Recorded (Recording Monitor) 36
Other Information You Need To Know 37
Assigning Track Numbers and Marks 38

Recording (Application) 40
Checking Disc's Remaining Time 40
Recording in Monaural Extended Mode 40
Re-Recording a Disc 41

Editing 42
Ways of Editing a Disc 42
Assigning a Disc Name or a Track Name. 46
Dividing a Track (DIVIDE Function) 52
Combining Tracks (COMBINE Function) 53
Moving a Track (MOVE Function) 54
Erasing One Track at a Time (ERASE Function) 56
Erasing All Tracks (ALL ERASE Function) 57
Copying character information in its Entirety (NAME STAMP Function) 58

Convenient functions 60
Canceling the Operating Tone (Beep) 60
Avoiding Faulty Operation (HOLD) 60

MiniDisc-system 61
Auto Power Save Function 62
In case of difficulty 65
Restrictions Related to MiniDisc Standards 65
Meaning of display messages 66
Troubleshooting 68
Index 69
Specifications 71

ENGLISH

⚠ Caution: Read this page carefully to ensure safe operation.

IMPORTANT SAFEGUARDS

Please read all of the safety and operating instructions before operating this unit. For best results, follow all warnings placed on the unit and adhere to the operating and use instructions. These safety and operating instructions should be retained for future reference.

1. **Power sources** — The unit should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

2. **Power-cord protection** — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.

3. **Enclosure removal** — Never remove the enclosure. If the internal parts are touched accidentally, a serious electric shock might occur.

4. **Drop** — Do not drop the unit or apply strong shock to it. (Damage due to dropping the unit is not covered by the warranty.)

5. **Ventilation** — Avoid hindering the ventilation of the unit by covering it with a cloth, etc.

6. **Abnormal smell** — If an abnormal smell or smoke is detected, immediately turn the power OFF and pull out the power cord. Contact your dealer or nearest service center.

7. **Heat** — Avoid placing the unit under direct sunlight or near a source of heat such as heating equipment. Particularly, never leave it in an automobile or on the dashboard.

8. **Temperature** — The unit may not function properly if used at extremely low, or freezing temperatures. The ideal ambient temperature is above +5°C (41°F).

9. **Water and moisture** — The unit should not be used near water — for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

10. **Dust and moisture** — Avoid places where is dusty or where the humidity is high.

11. **Vibrations** — Avoid placing the unit on an unstable place such as a shelf or in a place subject to vibrations.

⚠ Caution: Read this page carefully to ensure safe operation.

12. **Magnetic fields** — Keep the unit away from sources of magnetic fields such as TV sets, speaker systems, radios, motorized toys or magnetized objects.

13. **Cleaning** — Do not use volatile solvents such as alcohol, paint thinner, gasoline, or benzine, etc. to clean the cabinet. Use a clean dry cloth.

14. **Nonuse periods** — The power cord of the unit should be unplugged from the outlet when left unused for a long period of time.

15. **Damage requiring service** — The unit should be serviced by qualified service personnel when:
    A. The power-supply cord or the plug has been damaged.
    B. Objects have fallen, or liquid has been spilled into the unit.
    C. The unit has been exposed to rain.
    D. The unit does not appear to operate normally or exhibits a marked change in performance.
    E. The unit has been dropped, or the enclosure damaged.

16. **Servicing** — The user should not attempt to service the unit beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

17. **CAUTION** — TO PREVENT ELECTRIC SHOCK DO NOT USE THE AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

The marking of products using lasers (Except for some areas).

CLASS 1 LASER PRODUCT

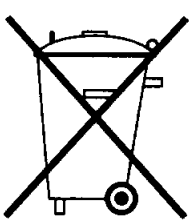
This label is attached to the bottom panel and says that the component uses laser beams that have been classified as Class 1. It means that the unit is utilizing laser beams that are of a weaker class. There is no danger of hazardous radiation outside the unit.

WARNING

Lithium battery.
Danger of explosion if handled careless.
Replace the battery with the same manufacturer and type.
Return the old battery to the supplier.

REQUIREMENT BY NEDERLAND GAZETTE

Batteries are supplied with this product. When they are empty, you should not throw them away. Instead, hand them in as small chemical waste.



Special features

Equipped with a NAME STAMP Function for Exact Copying of a Disc's Written Data

Disc name, track names, and other written data can be copied in their entirety from a MiniDisc with pre-recorded tracks and written data (master MiniDisc).

About 9.5 Hours of Continuous Playback and 7 Hours of Continuous Recording

With only the specially provided charger, up to 9.5 hours of continuous playback and even 7 hours of continuous recording are possible.

Various operations are possible with the remote control

The remote control can be used for Play, Pause, Skip, Bass Boost, etc.

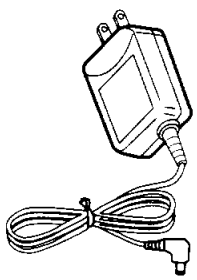
Full Range of Functions for Easy Recording

In addition to data and edit functions specially designated for MiniDiscs (rearranging order of tracks, dividing and combining tracks, etc.), functions are provided for convenience and portability. • Recording time and date log • 3.5- or 10-minute interval time marker function • Microphone Synchro Record function that detects audio and starts recording • Double-speed playback • Monaural Extended recording.

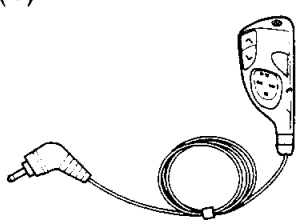
Accessories

Check that the following accessories are present.

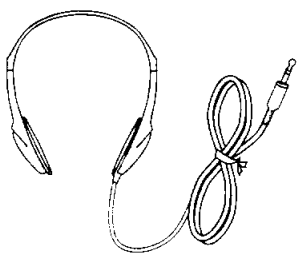
AC adaptor (1)



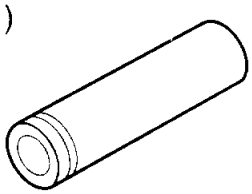
Remote control unit (1)



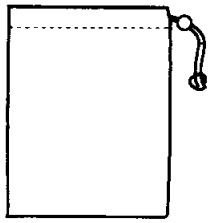
Stereo headphone (1)



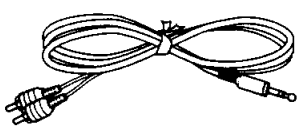
Rechargeable battery (1)



Carrying case (1)



Patch cord (1)



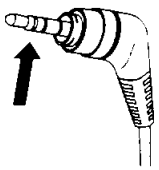
Simple care

When dirty

- Wipe with a dry, soft cloth.
  If the unit is very dirty, moisten the cloth slightly and wipe off the dirt. Afterwards, make sure you wipe the unit dry with a dry cloth.

Taking care of plugs etc.

- Always keep the plugs of headphones etc. clean.
  Dirty plugs can cause noise or failure of remote control operation.



Notes

1. Do not use chemicals like benzine, thinner, etc., as they can cause deterioration and discoloration.
2. Do not apply oil to the unit, for this will cause it to malfunction.

Beware of condensation

When water vapor comes into contact with the surface of cold material, water drops are produced. If condensation occurs, correct operation may not be possible, or the unit may not function correctly.
This is not a malfunction, however, and the unit should be dried.
(To do this, turn the POWER switch ON and leave the unit as it is for several hours.)

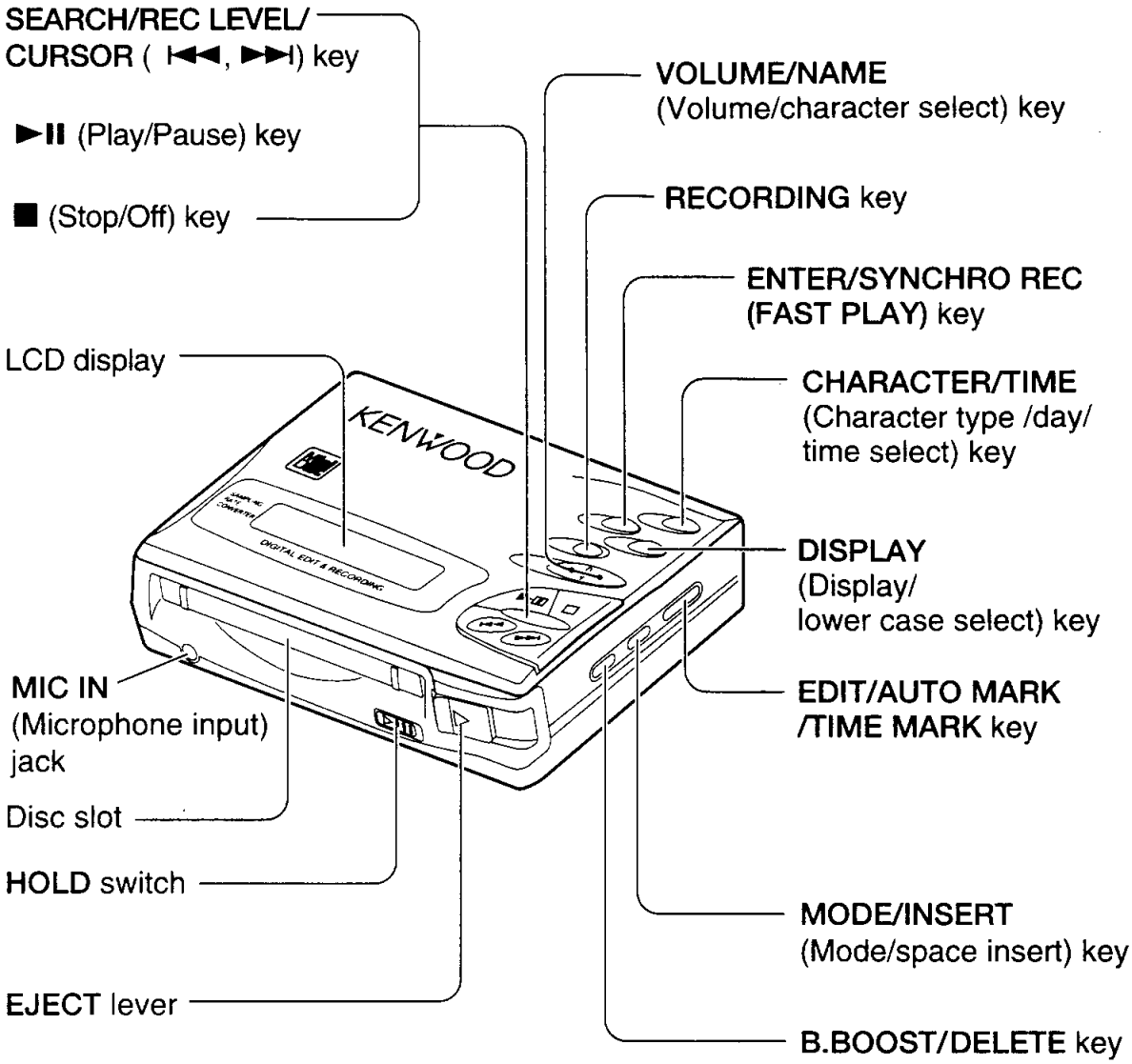
Be especially careful in the following conditions:

- When the unit is brought from a cold place to a warm place and there is a large temperature difference.
- When a heater starts operating.
- When the unit is brought from an air-conditioned place to a place of high temperature with high humidity.
- When there is a large difference between the internal temperature of the unit and the ambient temperature, or in conditions where condensation occurs easily.

US and foreign patents licensed from Dolby Laboratories Licensing Corporation

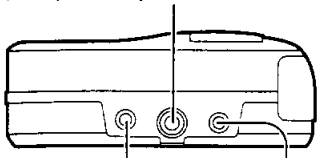
Main Unit

Front / Top / Right side



Left side

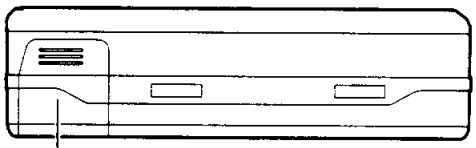
(Headphone/Line output) jack



DC IN 5V (External power) jack

OPTICAL/LINE IN jack

Rear



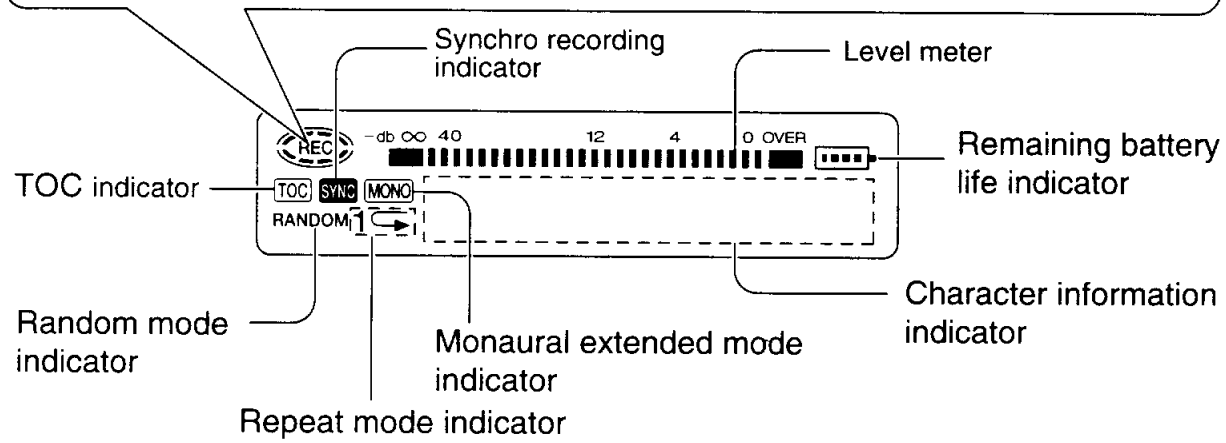
Battery cover

Unit Display

Disc mark (Indicates playback, recording, or other status.)

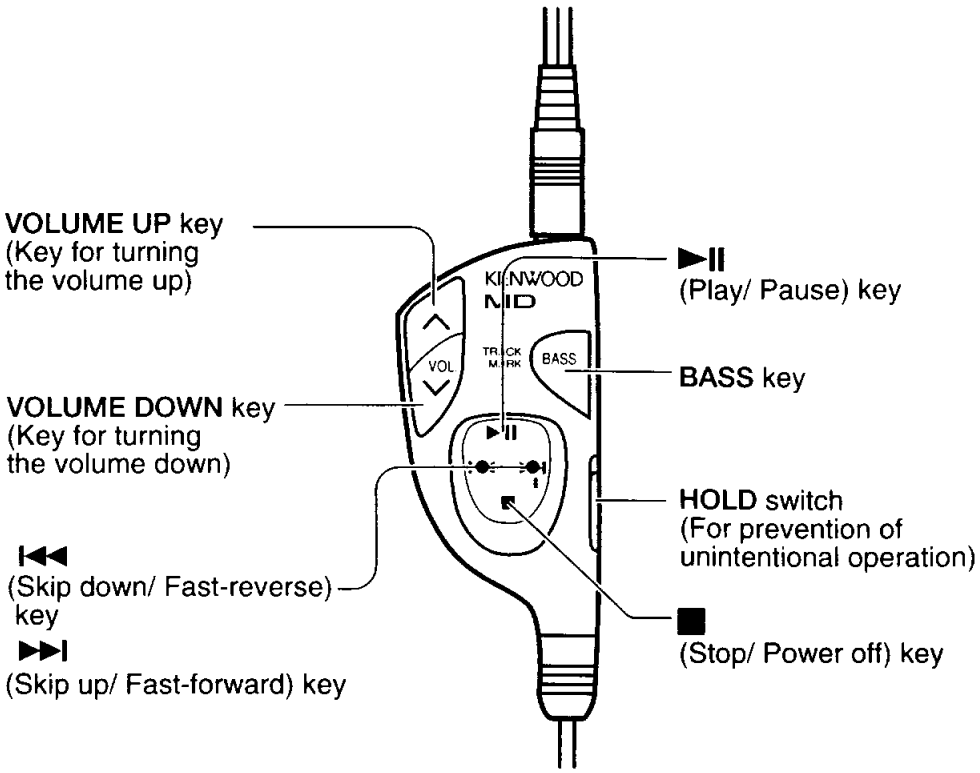
During Stop	During playback	During Fast Forward/ Reverse operation	During recording
	Flashes during Pause status.	Arrows rotate quickly to the right during Fast Forward operation.	Flashes during Pause status.
	Rotate slowly to the right during playback.	Rotate quickly to the left during Reverse operation.	Rotate slowly to the right while recording is in progress.

REC — Recording indicator

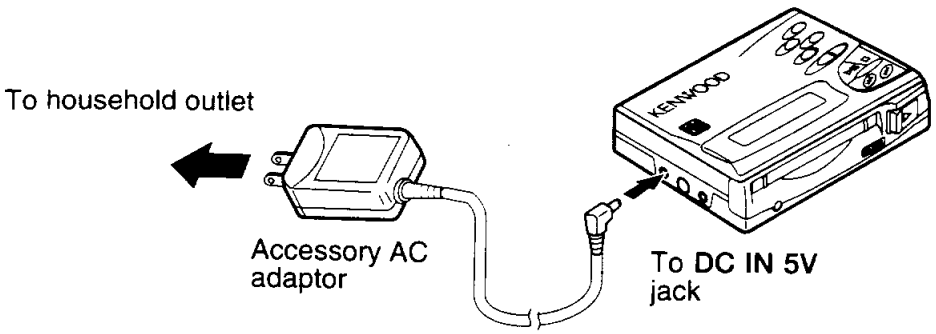


ENGLISH

Remote Control



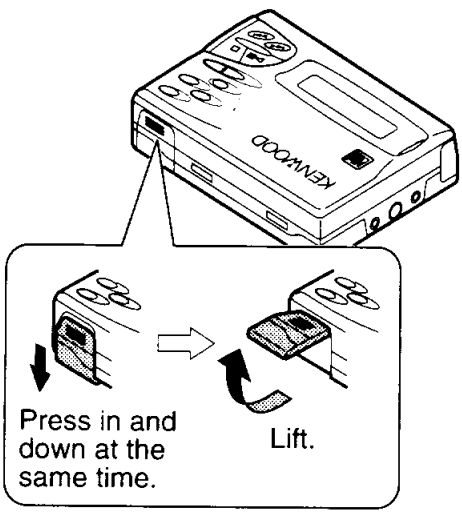
Using the AC adaptor



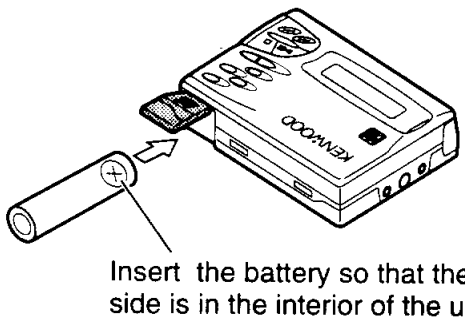
Charging the rechargeable battery

- The battery is not fully charged, so charge the battery according to the following procedure before you use the unit.
- Charge the battery with the power to the unit turned OFF.
- When the optional battery case is attached, remove it before charging the battery.

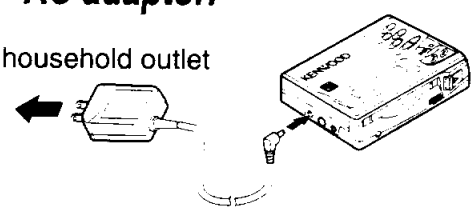
1 Open the rechargeable battery cover.



2 Insert the rechargeable battery and close the cover.



3 Connect the specially provided AC adaptor.



4 Press the ■ key.

The [▮▮▮▮] mark starts flashing and charging begins.

ENGLISH

Charging time

- The battery can be fully charged in about 3 hours.
- The mark extinguishes when charging has been completed.

When the AC adapter is removed from the unit or from the wall outlet while charging is in progress, the mark will not go out for about 1 minute. This is normal and does not indicate a malfunction.

Battery life

The unit can be used as follows after the battery has been charged.

Continuous playback: about 9.5 hours (with full charge and volume level at "VOL 20")

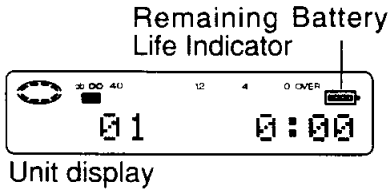
Continuous recording: about 7 hours (with full charge, analog input, and playback volume level at "VOL 0")

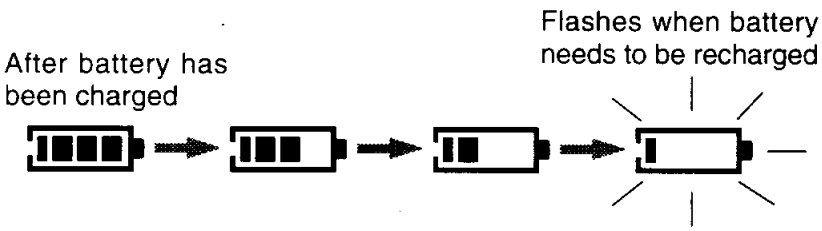
* This value is a standard value for continuous use/charging in an ambient temperature of 25℃. Battery life varies depending on the use environment and temperature.

Checking the remaining battery life and charge status

For handy reference, the remaining battery life is indicated on the display while the unit is in operation.

- As the remaining battery life diminishes, the scale graduations are extinguished one at a time.The entire display starts flashing when the battery's remaining charge is very low. Recharge the battery at this time. When the battery's charge is completely depleted, "BATT EMPTY" is displayed in the unit's display part, and the power will automatically turn off.





Recording, editing, or other operations cannot be started at this time.

[Unit display]: Contents of remote control display are different.

- When both the rechargeable battery and optional battery case are installed in the unit, both sets of batteries are alternately used automatically. Since the remaining battery life indicator indicates the remaining life of the batteries being used, the indicated battery life may vary.
- When the unit is used with the AC adaptor or the optional car battery adaptor, the remaining battery life display will be fully illuminated.

Cautions regarding use of rechargeable (lithium ion) battery

- The battery is a rechargeable lithium ion battery. Because of the properties of this battery, it must be recharged at least once every 3 months, even if it is not used.
- The battery can be recharged about 300 times.
- Do not use any battery other than the specially provided rechargeable battery. Use of another battery will damage the unit.
- When the service life of the battery is about half its normal life even after it has been recharged, replace the battery with a new one.
- After the battery has been charged, the unit may be used with the AC adaptor connected. But if the unit is not used for a long time (such as overnight charging), disconnect the AC adaptor.
- A small amount of power is used even when the unit is turned OFF. If the unit is not used for a long time, therefore, remove the battery and store it in a safe place.
- Periodically wipe the jacks with a dry cloth. Never use water or alcohol when wiping the jacks.

During battery charging or use of the unit, the battery may become warm. This is normal and does not indicate a malfunction.

For use in a car

Please use the separately sold car battery adaptor (DC-C50) and car cassette adaptor (CAC-2) when listening to a car stereo system.

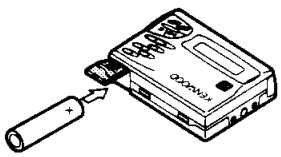
Only use the exclusive adaptor, as other adaptors can cause trouble.

This unit has an Auto Play function that automatically turns the power on and starts playback as soon as a disc has been inserted into the unit.
If playback does not start as soon as a disc has been inserted, cancel the Auto Play function or turn the power off. Under these conditions the Auto Play function is operating and the battery life is being depleted. → 19

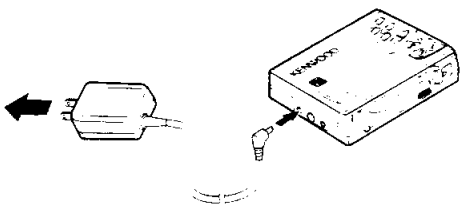
Sequential playback from the first track

1 Set the battery in place or connect the AC adaptor.

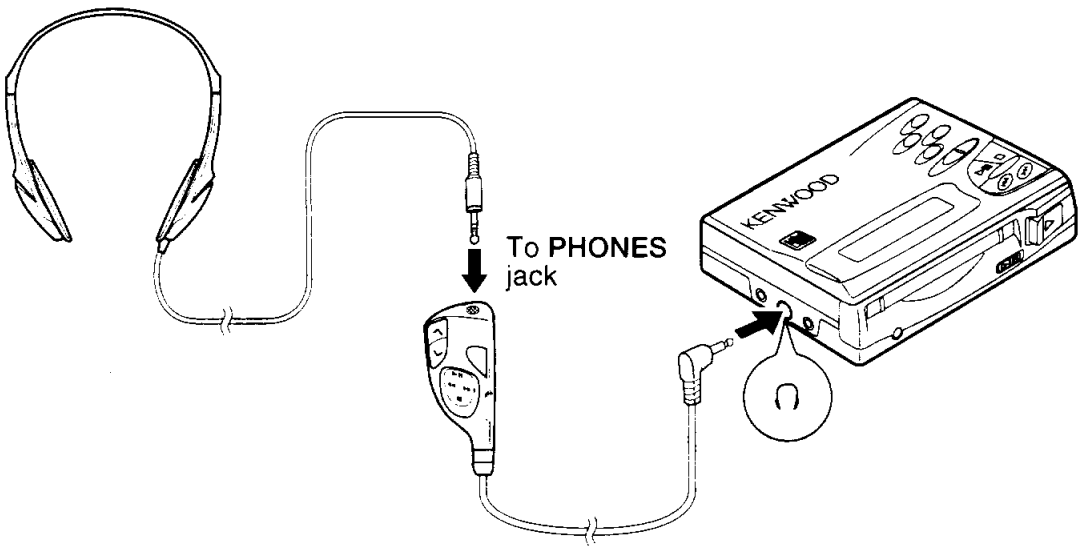
When using the rechargeable battery



When using the AC adaptor



2 Connect the remote control and headphone.



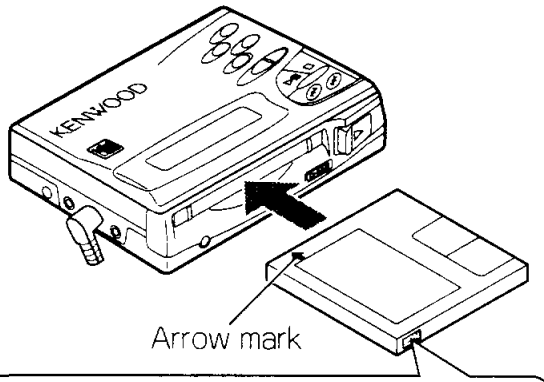
- The optional stereo headphones with miniplug can also be used. → 23

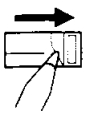
Notes

1. Do not connect a remote control other than the accessory remote control unit.
2. Insert the plug securely into the jack.
3. Always hold the plug to pull it. Pulling on the cord to pull the plug can cause trouble.

ENGLISH

3 Insert a recorded MiniDisc (playback starts).

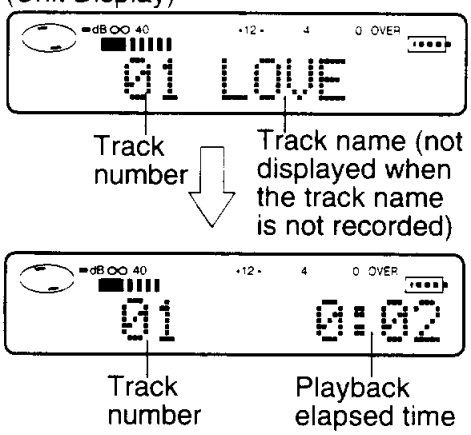




- Keep the knob on a recordable Mini Disc in the Open position.
- When the knob is in the Closed position (recording is possible), Auto Play operation is not possible. → 36

- Power is turned on automatically and playback starts from the first track (Auto Play).
- When Auto Play is canceled (→ 19), playback can be started by pressing the ▷▯▯ key.

(Unit Display)

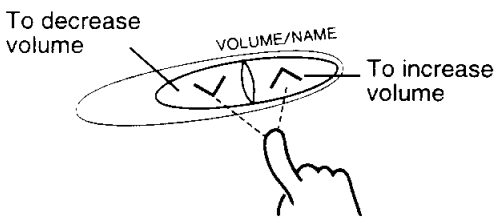


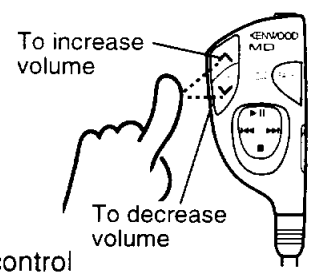
- Playback stops after the last track has ended.

Notes

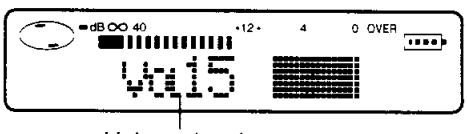
- When inserting a MiniDisc into the unit, press on the middle part of the cartridge and keep the cartridge level and straight.
- If the MiniDisc becomes snagged or is difficult to insert, do not force it into place, for this will result in damage. Remove the disc and re-insert it carefully.

4 Adjust the volume





- Set the volume level between 0 and 30.
- Once the volume has been adjusted, it will be stored in memory until it has been changed, even after the power has been turned **OFF**.



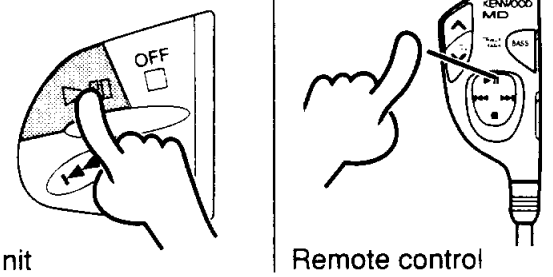
- The bass characteristics also can be changed. → 23

ENGLISH

ENGLISH

To pause playback

Press during playback.

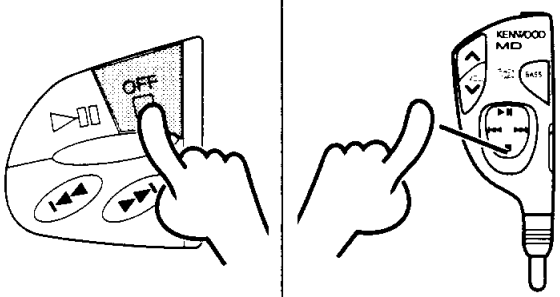


Unit Remote control

- Pressing the key again will resume Playback from the stopped position.

To stop playback

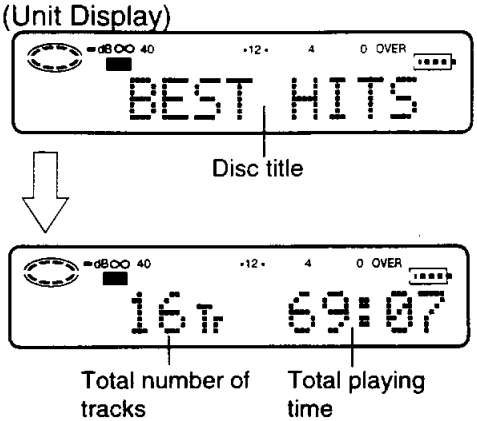
Press during playback or pause status.



Unit Remote control

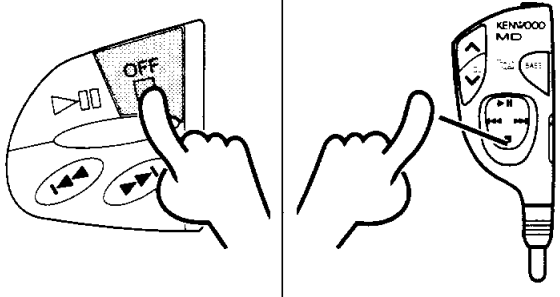
- Playback will stop when the ■ (OFF) key is pressed during playback or pause status.

(Unit Display)



To turn power off

Press during stop status.

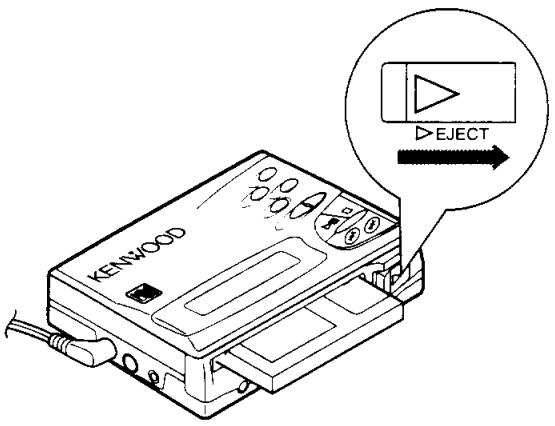


Unit Remote control

- The unit can be turned off by pressing the ■ (OFF) key on the unit during stop status.
- The power will automatically turn off if the unit is not operated for about 2 minutes after it has stopped.

When playback is restarted, it will resume from the point it was previously stopped. (Playback will start from the first track if the MD has been removed from the unit.) This is called the **"RESUME"** function.

Removing the MiniDisc

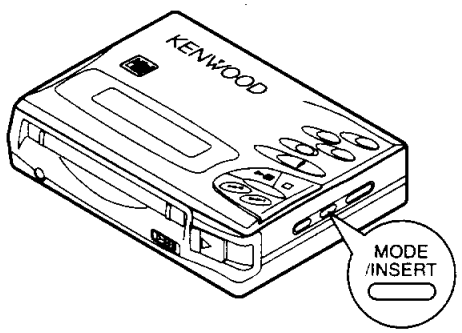


- After the power is turned off, slide the **EJECT** lever in the direction of the arrow and remove the MiniDisc.

Using the Unit with Auto Play Canceled

When you do not want playback to start as soon as you insert the MiniDisc, cancel the Auto Play function.

Press and hold down the MODE/INSERT key for at least 2 seconds while Stop status is engaged.

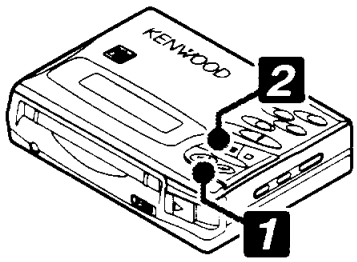


- While Stop status is engaged, press and hold down the **MODE/INSERT** key for at least 2 seconds until "**A-PLAY OFF**" is displayed.

- To start playback, press the ▷II key.

When Restoring Original Status.

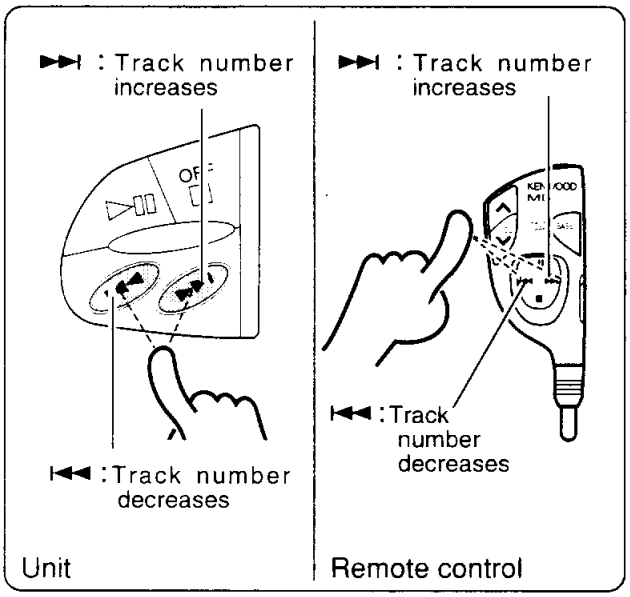
- During Stop status, press and hold down the **MODE/INSERT** key for at least 2 seconds until "**A-PLAY ON**" is displayed.



Playback from the desired track (SKIP)

From stop status you can skip to the start of the track you want to hear.

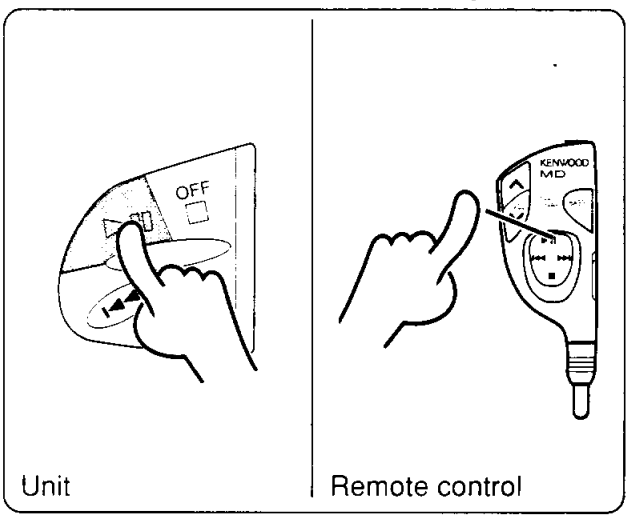
1 Press the ⏮ key or ⏭ key.



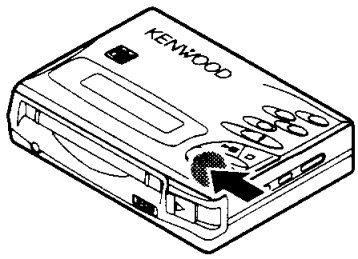
- The track number changes each time the key is pressed.
- If the key is held down, the track numbers will change continuously.

- When the ⏭ is pressed repeatedly and the last track is reached, the last track will be selected.
- When the ⏮ is pressed repeatedly and the first track is reached, the first track will be selected.

2 Press the ▷II key.



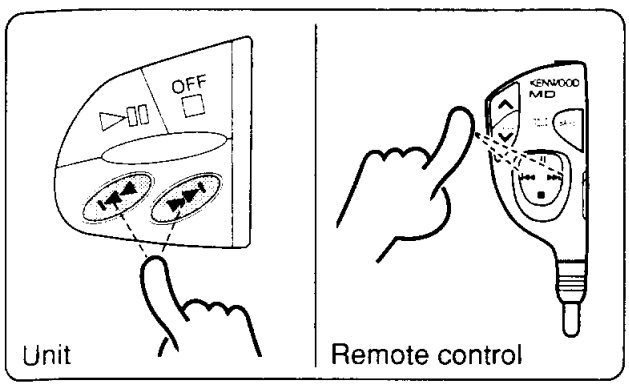
- Playback starts from the selected track.



Skipping to another track during playback (SKIP)

During Playback of one track you can skip to another track you want to hear.

Press the ⏮ key or ⏭ key



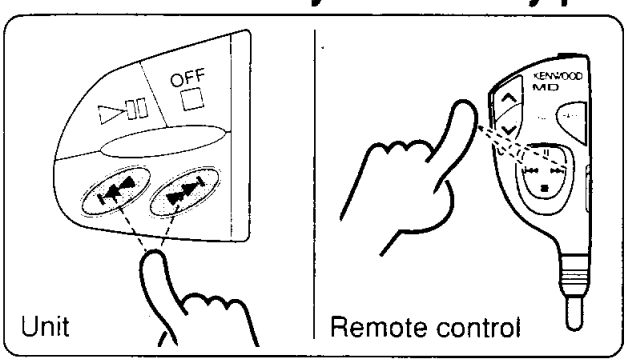
- When the ⏭ key is pressed, playback will skip to the start of the subsequent track.
- Each time the key is pressed, playback will skip to the next track.

- When the ⏮ key is pressed, playback will skip to the start of the track being played back.
- Each time the key is pressed, playback will skip to the previous track.

Searching for the desired track (SEARCH)

Fast Forward and fast-reverse operations can be performed while listening to music.

Hold the ⏮ key or ⏭ key pressed during playback



For Forward search : keep pressing the ⏭ key during playback.
For Reverse search : keep pressing the ⏮ key during playback.

- When you lift your finger off the key, normal playback will be resumed.

When You Want a Faster SEARCH Speed

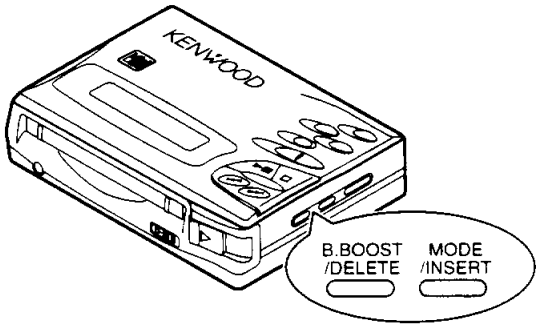
When you initiate Fast Forward/Reverse operation in Pause status, the SEARCH speed will be faster than when the operation is initiated in Play status.

- No sound will be emitted, so the time display should be used as a measure to locate the track you want to hear.
- When the key is released, the Pause status will be engaged at that point.

- In fast forward mode, the stop status is engaged when the end of the last track is reached.
- In reverse mode, playback starts when the start of the first track is reached.
- Depending on recording conditions, sound interruptions may occur during a fast forward/reverse operation.
- When Repeat All playback is engaged (→ 22), the Fast Forward/Reverse operation will span the first and last tracks. (Pause or Play status will not be engaged.)

ENGLISH

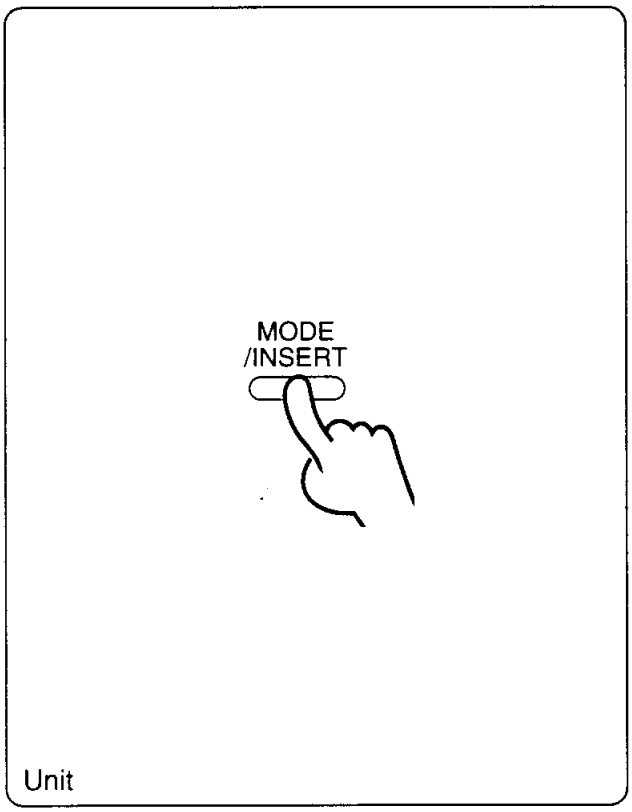
Random playback, repeat playback of all tracks, and repeat playback of only one track are all possible.



Random playback/ Repeated playback (RANDOM/REPEAT)

Random playback : All tracks are played back in random order once and then the unit stops automatically.
Repeat All playback : All tracks on the disc are played back repeatedly.
Repeat One playback : One track is played back repeatedly.

Press the MODE/INSERT key.



Each press of the key switches the mode as follows

① RANDOM : Random playback
② ⇄ : Repeat All playback
③ 1 ⇄ : Repeat One playback
④ Cancel

- Tracks can be selected while playback is in progress or Pause status is engaged.
- When a track has been selected during Stop status, press the ▷/II key and begin playback.

To return to normal playback, press the **MODE/INSERT** key repeatedly and cancel random playback and repeat playback.

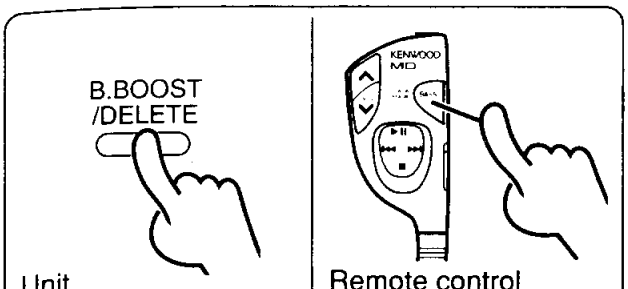
Notes

- When "**TOC**" is displayed, repeat playback is not possible.
- In random playback mode, when all tracks have been played back, the unit will stop automatically.
- During random playback or Repeat One playback, Fast Forward/Reverse operation beyond the track being played back is not possible.
- During random playback, the operation cannot return to the start of the track being played back.

Changing the tone (BASS BOOST)

The bass can be boosted in 3 stages.

Press the B.BOOST/DELETE key on the unit or the BASS key on the remote control.



Each press of the key switches the mode as follows

① **BASS 1:** Bass is boosted slightly.
② **BASS 2:** Bass is boosted more.
③ **BASS 3:** Bass is boosted even more.
④ **BASS 0:** Cancel

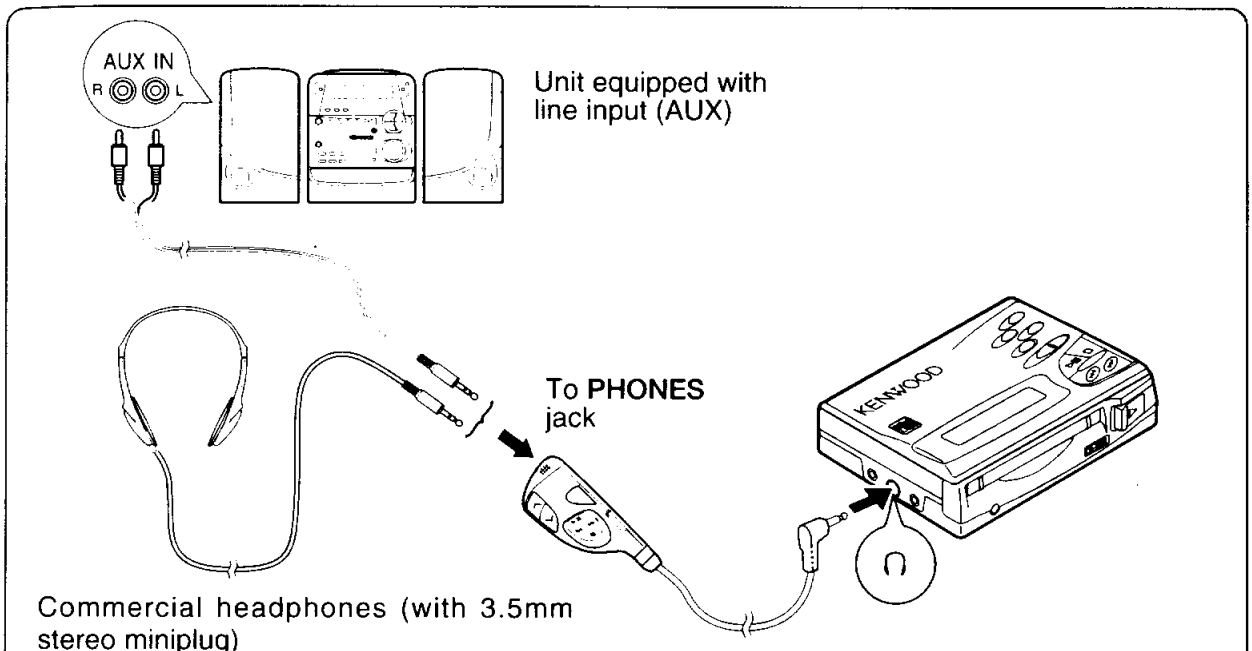
- Bass adjustment is not possible while recording.

Notes

When the bass is boosted, raising the volume excessively will result in sound distortion. If this happens, either lower the bass level or the volume level.
When the volume level is set at "VOL 26" or higher, the low volume boost level is automatically adjusted to minimize distortion.

Connecting to a Stereo Component System or Other Audio Equipment

The unit can be connected to another stereo system and heard through speakers or large headphones.



Commercial headphones (with 3.5mm stereo miniplug)

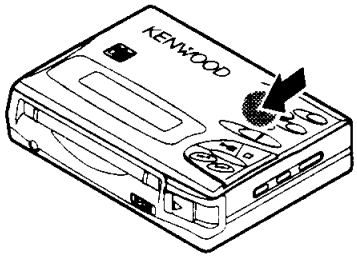
- Can also be connected directly to the unit, without using the remote control.

Notes

- Insert the plug securely into jack.
- When listening to the unit through a stereo system or radio cassette, use the volume controls on both the unit and the stereo system to adjust the volume level.

ENGLISH

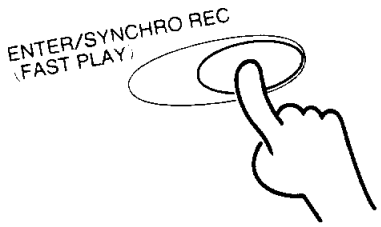
MiniDiscs recorded in Monaural Extended mode can be played back at double speed. (Recording in Monaural Extended mode → 40)



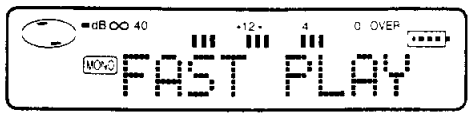
Initiating Fast Play Operation (Only Possible by Unit Operation)

Press the ENTER/SYNCHRO REC (FAST PLAY) key

During Monaural Extended mode playback



- Fast Play operation will begin when the **ENTER/SYNCHRO REC (FAST PLAY)** key is pressed during playback of a MiniDisc that has been recorded in Monaural Extended mode.



- If the key is pressed again, normal playback will be restored.

Pausing Fast Play Operation

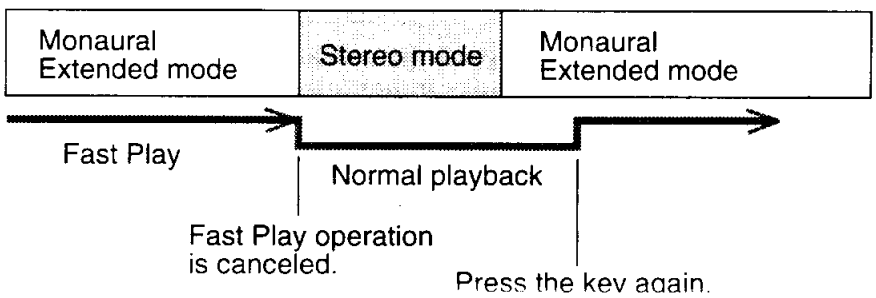
Press the ▷II key while playback is in progress.

- If the key is pressed again, Fast Play operation will be restored.

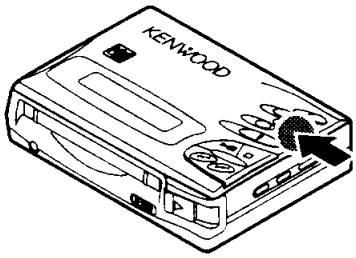
Some recorded content may be difficult to hear.

Tracks Recorded in Stereo Mode

- During Fast Play operation, playback of a track recorded in Stereo mode will cancel Fast Play mode.
- To restore Fast Play operation, press the **ENTER/SYNCHRO REC (FAST PLAY)** key.



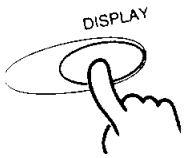
The name of the track being played back and the name of the MiniDisc (disc name) can be displayed.

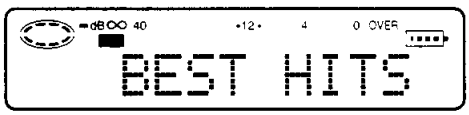


Displaying the Track Name and Disc Name

Displaying the Disc Name

Press the DISPLAY key on the unit while the stop status is engaged.

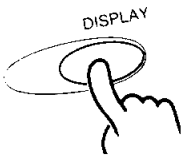


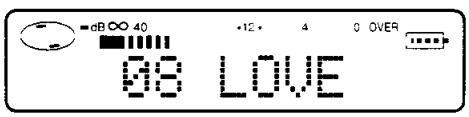


- Each time the key is pressed the disc name and total recording time are alternately displayed.

Displaying the Track Name

Press the DISPLAY key on the unit while playback is in progress.





- Each time the key is pressed the track name and the elapsed playback time of that track are alternately displayed.

Displaying Track Names in Sequence

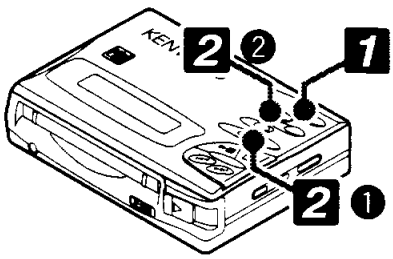
When the ⏮ key or the ⏭ key is pressed during Stop status, the name of the previous or subsequent track will be displayed.

Notes

- Track names and disc title cannot be displayed when they are not recorded on a MiniDisc.
- The elapsed time displayed during playback may differ from real time.

By setting the date and time, the MiniDisc's recording date and time can be recorded.

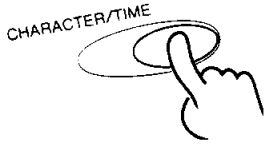
- The unit is equipped with a clock powered by a rechargeable battery.
- The built-in rechargeable battery for the clock has to be charged when the unit is first used and after long periods of non-use.
- To charge the rechargeable battery, keep the AC adaptor connected for about 2 hours. The unit can be used during this period.



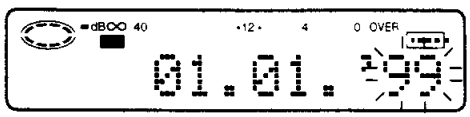
Setting the Date and Time (Possible Only by Unit Operation)

Preparation
❶ Connect the AC adaptor.
❷ Insert a MiniDisc and engage Stop status.

1 Press and hold down the CHARACTER/TIME key for about 3 seconds.



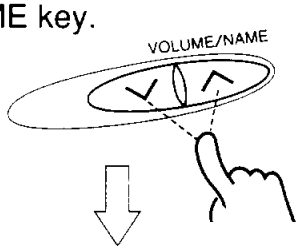
The month in the display will start flashing.



2 Set the time.

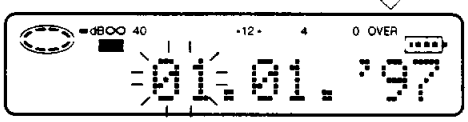
When setting the time, ❶ set the digits with the VOLUME/NAME key and ❷ press the ENTER/SYNCHRO REC key to move to the next operation.

❶ Set digits with the VOLUME/NAME key.

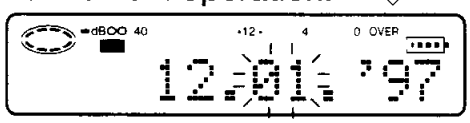


❷ Press the ENTER/SYNCHRO REC key and move to the next operation.

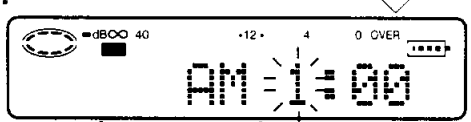
Set the year (2 digits) with the VOLUME/NAME key and press the ENTER/SYNCHRO REC key.



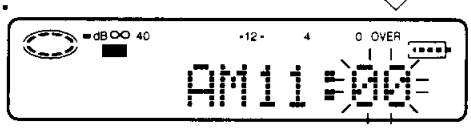
Set the month in the same manner and move to the next operation.



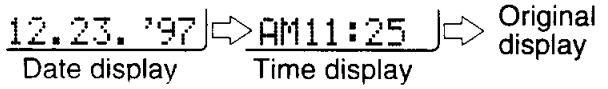
Set the day and move to the next operation.

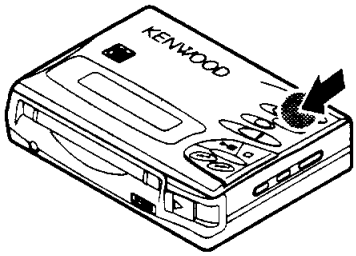


Set the time and move to the next operation.



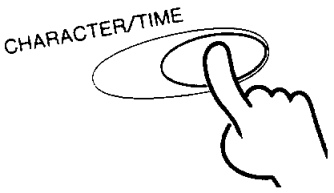
Set the minutes and press the ENTER/SYNCHRO REC key.



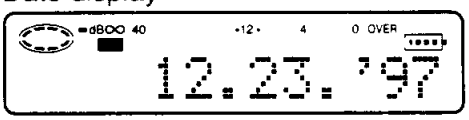


Checking the Current Date and Time

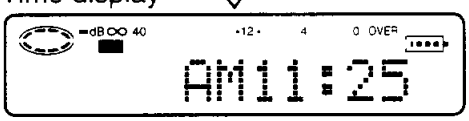
Press the CHARACTER/TIME key while Stop status is engaged.



Date display



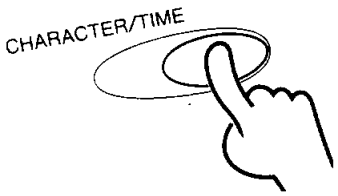
Time display



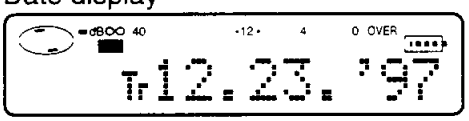
- Afterwards, the original display will be restored.

Checking the Recording Date and Time

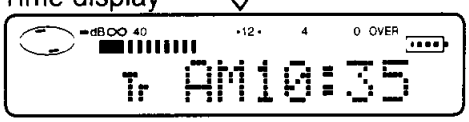
Press the CHARACTER/TIME key while playback is in progress.



Date display



Time display



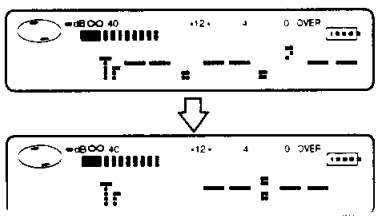
- Afterwards, the original display will be restored.
- The date and time when the recording was started for each track number is stored in the Auto Logger.
- When operations such as recording or MiniDisc editing (Name function, Move function, etc.) are performed with equipment other than this unit, all recording dates and times that have been recorded may be erased.

Notes

- When you make a mistake, repeat the operation from the start.
- The internal rechargeable battery for the clock will be charged when the unit is powered by either the AC adaptor, the rechargeable batteries, or alkaline batteries. Even when none of these power sources is used, the rechargeable battery for the clock will maintain the date and time for about one month.

When the Recording Date and Time are Not Recorded

The display will appear as follows.



Types of Connections for Recording

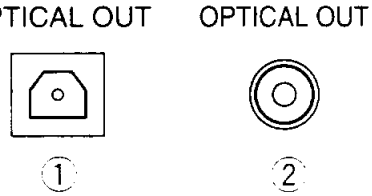
- With this Portable MiniDisc Recorder, two types of recording methods can be selected: recording with an optical digital connection to a CD player or other audio equipment, and recording with an analog connection.
- Select the recording method that suits the output jack on your equipment.

Recording with an Optical Digital Connection

- Recording with an optical digital connection produces high-quality recordings because signals are transferred digitally.
- The recording level is the same as that of the signal being recorded.

Connectable Equipment

CD players and other audio equipment equipped with output jacks 1 and 2 shown at right can be connected.



Required Patch Cord

The required cord should have one end matching the DMC-G7R jack 2 shape and the other end matching the shape of either jack 1 or jack 2 on the audio equipment to be connected.

Optional Cords

*Please contact your dealer for optional cables.

When Digital Recording Is Not Possible

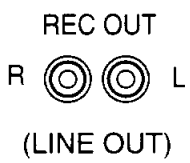
Digital recording is not possible when you try dubbing another digital signal onto a digitally recorded MiniDisc. → 64

Recording with an Analog Connection

With the specially provided patch cord, recording from a CD player, amp, or other audio equipment is possible. (When recording from a microphone, an analog connection is used.)

Connectable Equipment

Audio equipment that has output jacks (RCA pin) like those shown at right can be connected.



Required Patch Cord

Specially provided patch cord

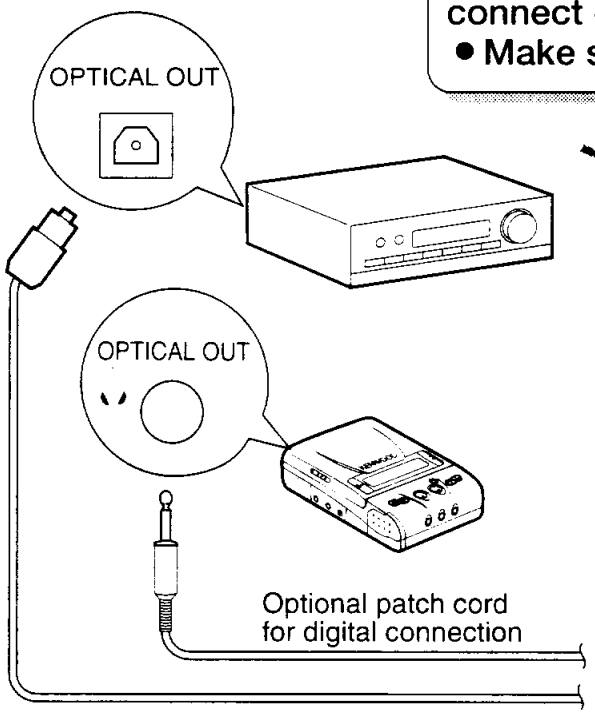
- Some audio equipment have different output jacks than those shown above. For such equipment, use commercially available patch cords.

ENGLISH

Connecting Equipment

Digital Connection

Check the shape of all output jacks and connect equipment correctly.
- Make sure plugs are securely inserted.

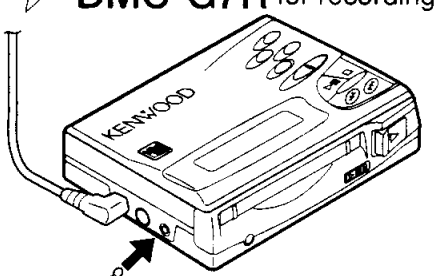


Connecting the Power Supply

→ 13

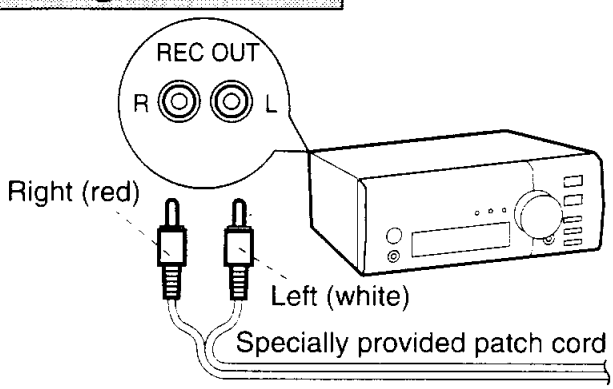
- When making recordings at home, use the AC adapter as much as possible. If the rechargeable battery is charged and installed while the AC adapter is used, the unit will automatically switch over to battery operation in the event of a power failure.

DMC-G7R for recording

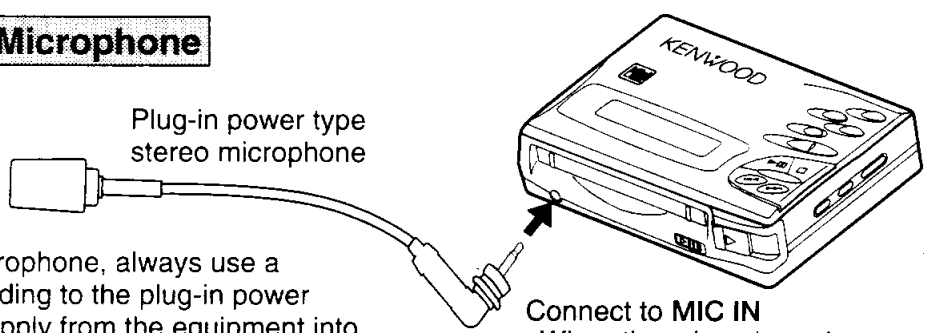


Connect to
OPTICAL/LINE IN

Analog Connection



Connecting a Microphone



- When using a microphone, always use a microphone according to the plug-in power method (power supply from the equipment into which the microphone is plugged) (with a 3.5 mm stereo mini plug).

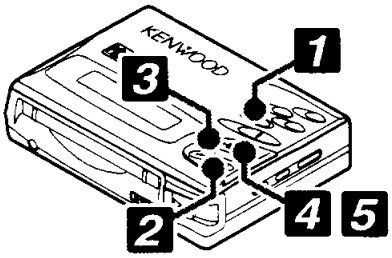
Connect to **MIC IN**
When the microphone is connected, input will switch over to the microphone.

ENGLISH

Always use the unit to make recordings.

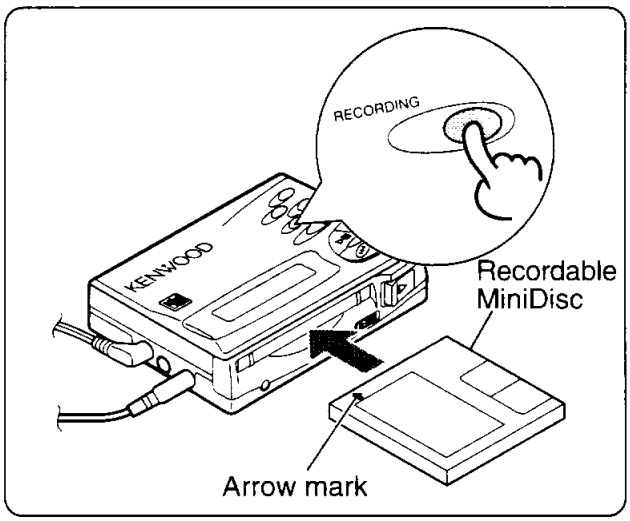
HOLD Switch

Both the unit and the remote control are equipped with a **HOLD** switch. To operate the keys, release the **HOLD** switch before operating the keys. Key operation is not accepted when **HOLD** status is engaged. → 60



Recording from a Tuner or Microphone (Manual Recording)

1 Engage Record Standby status.



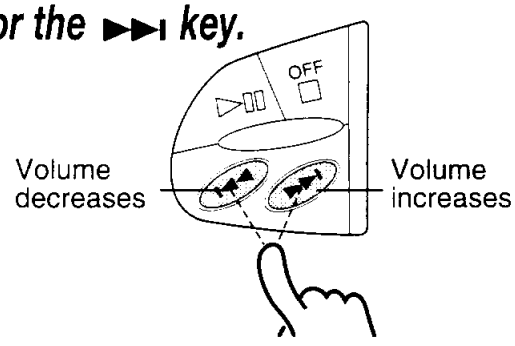
- Insert a recordable MiniDisc and press the **RECORDING** key.
- When recording a radio broadcast, tune in the radio station beforehand.
- When making an analog recording from a CD or other medium, play back the track you want to record.

Notes

- **When making a digital recording from a CD, set the CD player into Pause status and the MiniDisc recorder into Record Standby status.**
- **If the portable CD player or other audio equipment is equipped with a nonskip function (P 62), cancel the function before starting to record.**

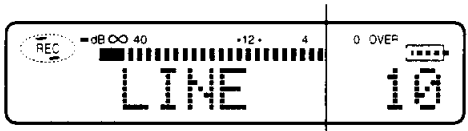
2 Adjust the volume level. (Only for analog input)

Adjust with either the ⏮ key or the ⏭ key.

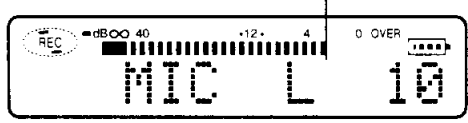


At maximum volume set the level so that it fluctuates between -4dB and 0dB.

LINE input



MIC input

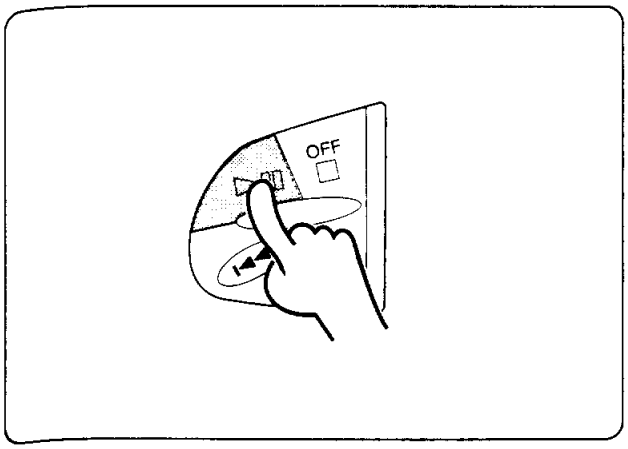


- When recording from a CD or other medium, set the connected equipment to Play Standby status after the above operation.

Notes

- If the recording level is too low, the volume of the recording will be too low; if the recording level is too high, distortion will increase. Since CDs and other media have a wide range of variation of sound intensity, be especially careful to avoid recording levels that are too high.
- When the recording level display is switched from "MIC H" to "MIC L" or other setting, the audio will momentarily stop. This is normal and does not indicate a malfunction.
- When recording from a microphone, make sure no device is connected to the unit's OPTICAL/LINE IN jack.

3 Start recording.

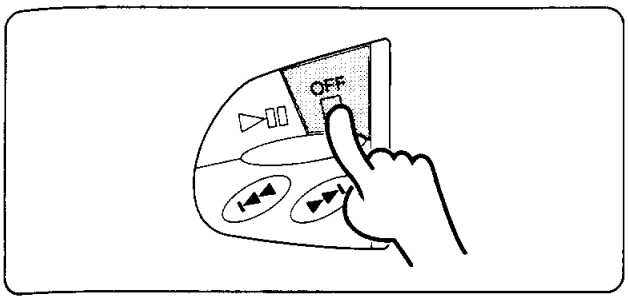


- Recording will start when the ▷▯▯ key is pressed.
- When recording from a CD or other medium, start playback operation on the connected equipment after pressing the ▷▯▯ key.

Pausing the Recording

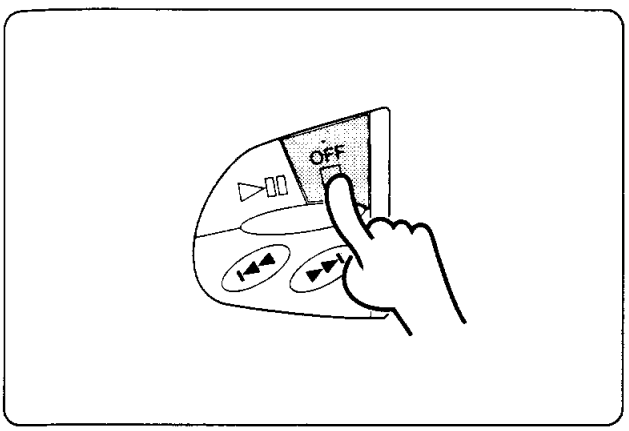
- The recording operation will be paused when the ▷▯▯ key is pressed while recording is in progress.
- To resume recording, press the ▷▯▯ key again.
- Each time a recording is paused, the track numbers will increase by one.

4 Stop recording.



- Press the ■ (OFF) key while recording is in progress.

5 Turn the power off. (TOC is recorded.)



- Press the ■ (OFF) key while Stop status is engaged.

Track number, recording location, and other data are referred to as TOC data. (→ 37) When recording has been completed and the power has been turned off, the TOC data will automatically be recorded before the power is turned off.

Notes

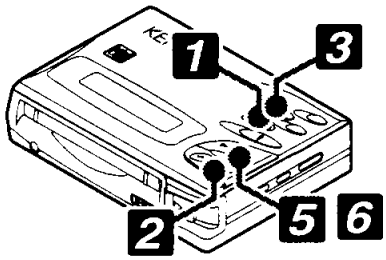
- Do not impact the unit while recording is in progress or "**TOC EDIT**" is displayed, for this may result in a faulty recording.

Recording is not possible at the following times:

- when you are trying to record on a Playback Only MiniDisc (commercially available music software, etc.);
- when the MiniDisc's erase protector is in the Open position. → 36

ENGLISH

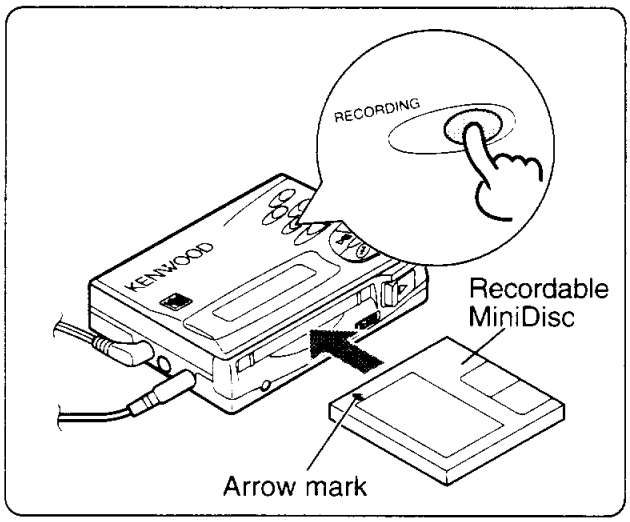
When recording a CD or MiniDisc, you can start the MiniDisc recording at the same time that the CD (or other medium) is started by using the Synchro Record function.



Note: To operate keys, cancel the **HOLD** switch before operating the keys.

Synchro Recording from a CD or MiniDisc

1 Engage Record Standby status.

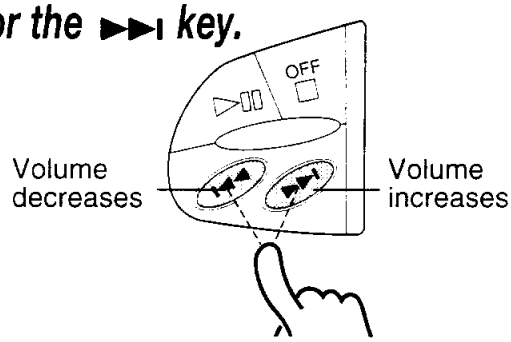


- Insert a recordable MiniDisc and press the **RECORDING** key.
- When making an analog recording from a CD or other medium, play back the track you want to record.

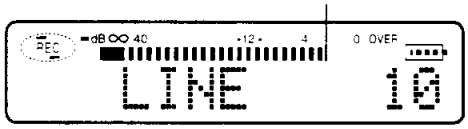
Notes:
- **When making a digital recording from a CD, set the CD player into Pause status and the MiniDisc recorder into Record Standby status.**
- **If the portable CD player or other audio equipment is equipped with a nonskip function (P 62), cancel the function before starting to record.**

2 Adjust the volume level. (Only for analog input)

Adjust with either the ⏮ key or the ⏭ key.



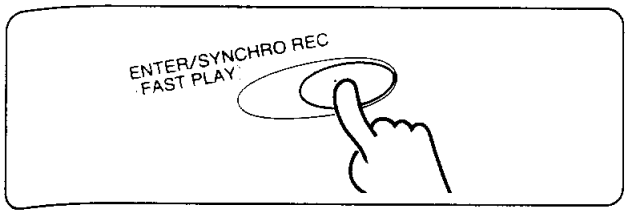
At maximum volume set the level so that it fluctuates between -4dB and 0dB.



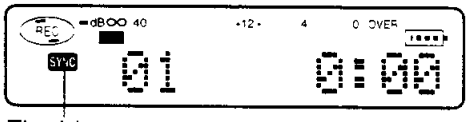
- When recording from a CD or other medium, set the connected equipment to Play Standby status after the above operation.

Note: If the recording level is too low, the volume of the recording will be too low; if the recording level is too high, distortion will increase. Since CDs and other media have a wide range of variation of sound intensity, be especially careful to avoid recording levels that are too high.

3 Engage Synchro Record Standby status.

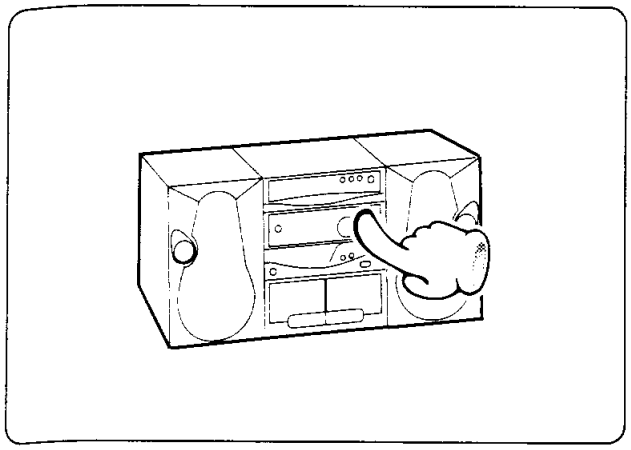


Press the **ENTER/SYNCHRO REC** key.

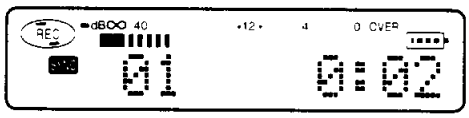


Flashing

4 Start playback on the connected audio equipment.

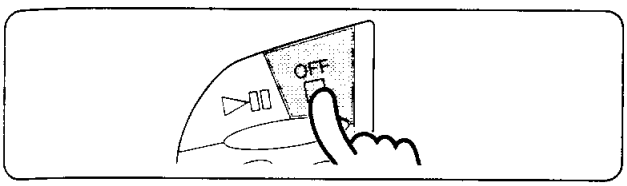


- When playback is started on the connected audio equipment, recording will start automatically.



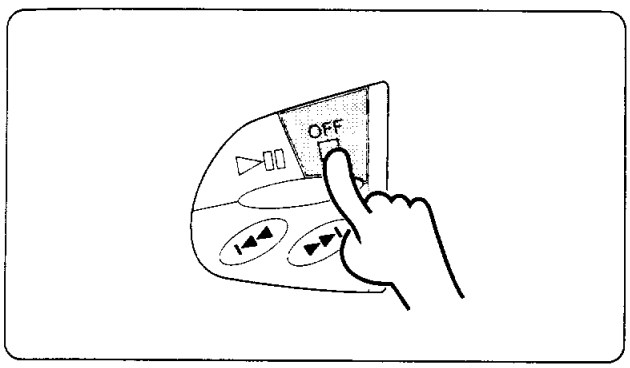
- When playback on the connected audio equipment is stopped, Synchro Record Standby status will be restored automatically. When playback is restarted, recording will continue. A track number will automatically be assigned at this time.
- If there is a continuous blank for at least 3 seconds, Pause status will be engaged.

5 Stop recording.



- Press the ■ (OFF) key while recording is in progress.

6 Turn the power off. (TOC is recorded.)



- Press the ■ (OFF) key key while Stop status is engaged.

Track number, recording location, and other data are referred to as TOC data. (→ 37) When recording has been completed and the power has been turned off, the TOC data will automatically be recorded before the power is turned off.

Notes

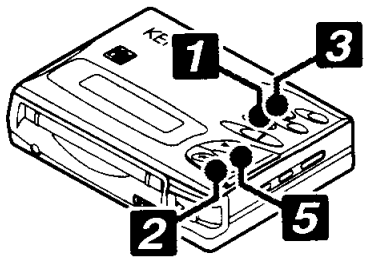
- Do not impact the unit while recording is in progress or "**TOC EDIT**" is displayed, for this may result in a faulty recording.

Recording is not possible at the following times:

- when you are trying to record on a Playback Only MiniDisc (commercially available music software, etc.);
- when the MiniDisc's erase protector is in the Open position. → 36

ENGLISH

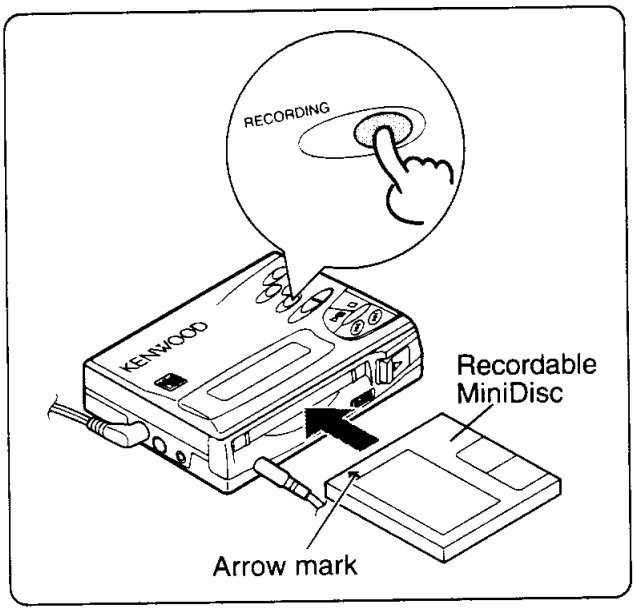
Recording will start and be paused automatically in response to music, voice, or other audio - which is convenient for recording meetings and for other recordings.



Note To operate keys, cancel the HOLD switch before operating the keys.

Synchro Recording from a Microphone (Mike Synchro Record)

1 Engage Record Standby status.

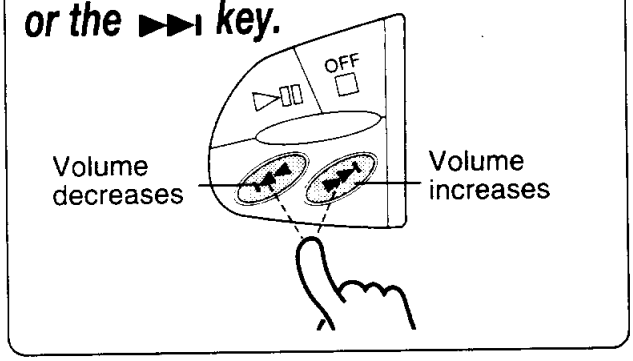


- Connect a microphone, insert a recordable MiniDisc, and press the RECORDING key.

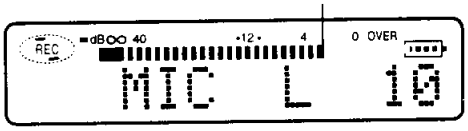
- **Recording in Monaural Extended mode is possible** → 40
- **While recording is in progress, location marks can be placed throughout the recording.** → 38

2 Adjust the volume level.

Adjust with either the ⏮ key or the ⏭ key.



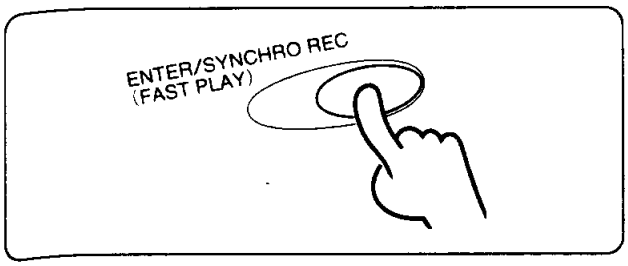
At maximum volume set the level so that it fluctuates between -4dB and 0dB.



Notes
- When the recording level display is switched from "MIC H" to "MIC L" or other setting, the audio will momentarily stop. This is normal and does not indicate a malfunction.
- When recording from a microphone, make sure no device is connected to the unit's OPTICAL/LINE IN jack.

3 Select the Microphone Synchro Record level.

(The unit will select the starting recording level according to the audio.)



- Press the **ENTER/SYNCHRO REC** key.

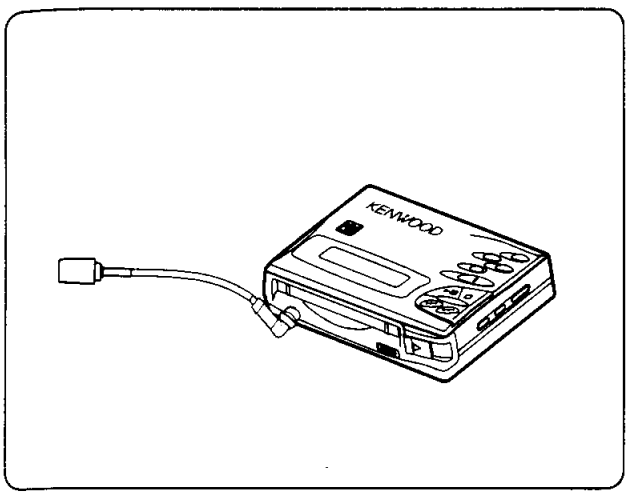
  Operation changes as follows each time the key is pressed. (Changing operation while recording is in progress is also possible.)

  ① **MIC SYNC H**
  ② **MIC SYNC L**

- Use the table at right as a standard for setting the starting Synchro Record level.

Synchro level display	Level at start of recording
MIC SYNC H	dB∞ 40 •12• 4 — About -24dB
MIC SYNC L	dB∞ 40 •12• 4 — About -12dB

4 Recording starts automatically as soon as audio is input.



- If there is a continuous blank for at least 3 seconds, the Pause status will be engaged. (But the Pause status will not be engaged for about 10 seconds after recording has started.)

Pausing the Recording

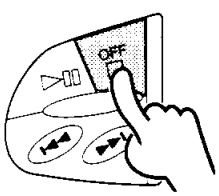
Press the ▷II key while recording is in progress.

- The Microphone Synchro Record status will be canceled and Record Standby status will be engaged.
- To restart the Microphone Synchro Record operation, press the **ENTER/SYNCHRO REC** key.

5 Stop recording and turn the power off. (TOC is recorded.)

Stop recording by pressing the ■ (OFF)key once while recording is in progress.

When the key is pressed again, the TOC will be recorded and then the power will be turned off.



Track number, recording location, and other data are referred to as TOC data. (→ 37) When recording has been completed and the power has been turned off, the TOC data will automatically be recorded before the power is turned off.

Notes

- Do not impact the unit while recording is in progress or "**TOC EDIT**" is displayed, for this may result in a faulty recording.

Recording is not possible at the following times:

- when the MiniDisc's erase protector is in the Open position. → 36

ENGLISH

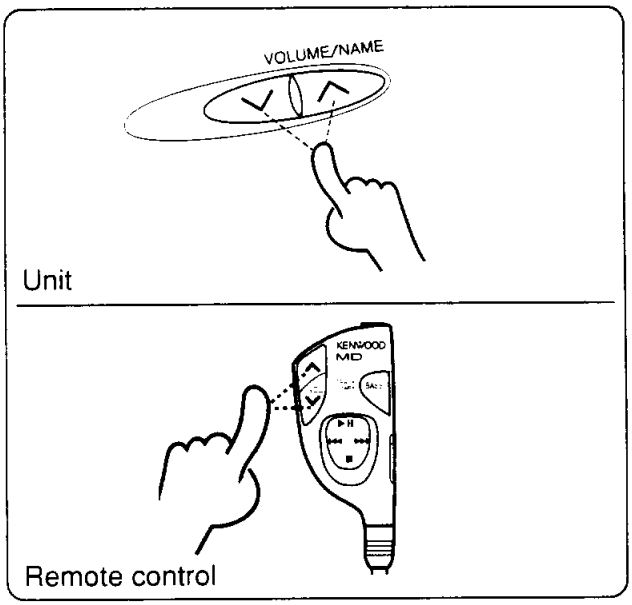
Making an Additional Recording

There is no need to search for unrecorded parts.

The unit will automatically find an unrecorded part and record on it.
(To erase a portion of a recording and re-record it, refer to Page 41.)

ENGLISH

Listening to the Audio Being Recorded (Recording Monitor)



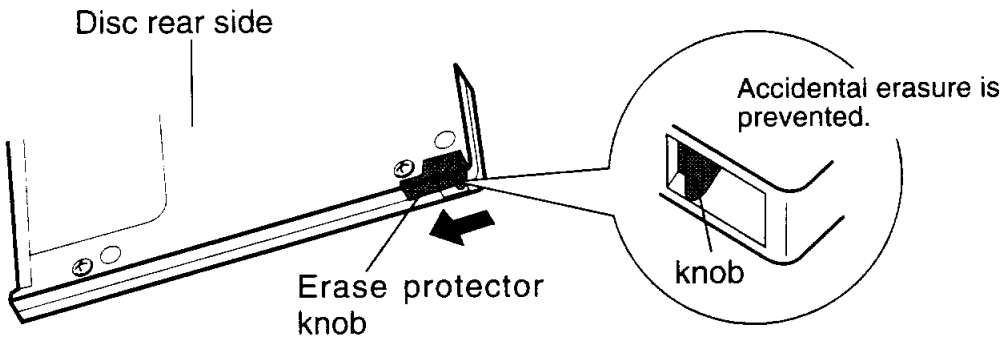
The recording can be monitored while it is in progress by connecting headphones or an external amp or other audio equipment to the PHONES jack.

- Adjust the recording level with either the ⏮ key or the ⏭ key.

When using battery operation, setting the volume level to "0" and not monitoring the recording will conserve battery life.

Avoiding Accidental Erasure of a Recorded MiniDisc

- To save valuable recordings, slide the erase protector knob so that the window in the rear of the disc is open.
- To re-record the disc, slide the erase protector knob to its original position.



Other Information You Need To Know

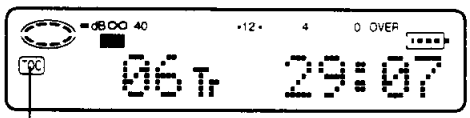
The TOC (Table of Contents) is the portion of the MiniDisc

where track numbers, track names, and other data recorded on the MiniDisc are stored, similar to the Table of Contents of a book. Because of the TOC, the starting point of each track can be picked up quickly and easily during playback, and blank portions on the disc can be recorded automatically.

If the TOC on a MiniDisc is incorrectly recorded, normal playback will not be possible.

When recording or editing is done, the TOC display will appear on the screen. This indicates that the contents of the stored data are being modified.

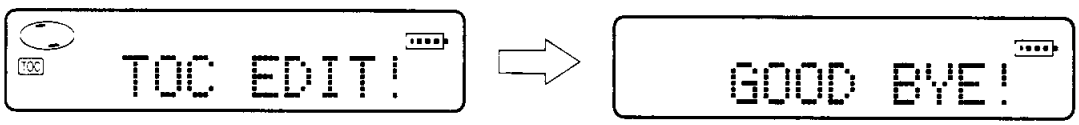
At this point the data are not yet recorded on the MiniDisc.



TOC display

When Are TOC Data Recorded?

→TOC data are automatically recorded after a recording or editing operation has been completed and the power has been turned off.



- When recording of the TOC data has been completed, the power will turn off.

Notes

- Do not disconnect the power cord while TOC or "**TOC EDIT!**" is displayed, because this will erase the recorded or edited contents and cause incorrect TOC data to be recorded.
- Do not impact the unit while "**TOC EDIT!**" is displayed, for this may cause incorrect TOC data to be recorded.
- When TOC is displayed, the MiniDisc cannot be removed. To remove the disc, press the ■ (**OFF**) key once and turn the power off.

Assigning Track Numbers and Marks

Auto Mark Function (Track numbers can be automatically assigned when an analog connection is used.)

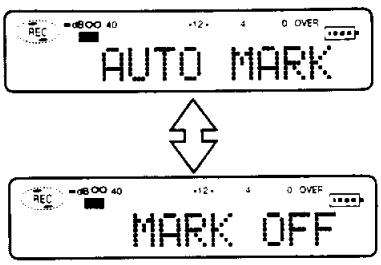
Press the EDIT/AUTO MARK/TIME MARK key while Record Standby status is engaged.

- A blank portion about 1 second in length (3 seconds in the case of Synchro Record) is treated as the end of a track, so a track number will automatically be assigned.
- Once a track number has been assigned, the starting point of a track can be picked up instantly.

Recording a Continuous Track Without Using the Auto Mark Function

- Press the **EDIT/AUTO MARK/TIME MARK** key while Record Standby status is engaged.
- Operation changes as follows each time the key is pressed.

→ ① **AUTO MARK**: Track number is automatically assigned
└ ② **MARK OFF** : Recorded as a continuous track



Notes

In the case of an analog connection, the Auto Mark function detects the blank part of a track and then operates. Consequently, a track number may not be assigned to the correct location in cases such as the following:

- when there is no blank between tracks because of applause or other reason;
- when the noise between tracks is loud;
- when the sound level in classical or other music is extremely low.

When a Digital Connection Is Used (Track number is automatically assigned.)

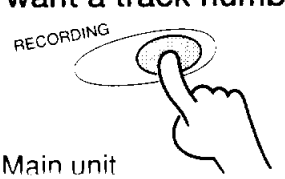
When recording from a CD player or other audio equipment with a digital connection, track numbers are automatically assigned, regardless of the length of blank portions.

Notes

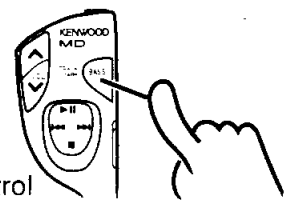
- The track number on the playback side and the track number on the recorded MiniDisc may not always agree.
- An incorrect track number may be assigned during recording when Program Playback is engaged or tracks are being manually selected on the playback machine while playback is in progress.
- A track number can be changed after it has been recorded. → 54

Assigning a Track Number to Any Location During Recording

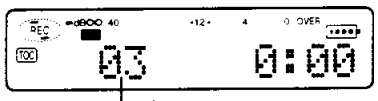
Press the unit's REC key or the remote control's BASS BOOST key whenever you want a track number assigned.



Main unit

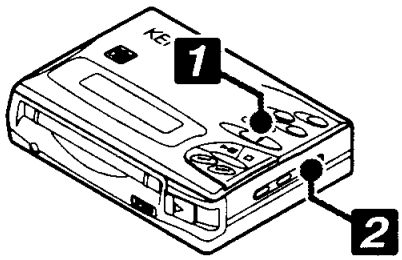


Remote control



Track number increases by one.

Marks can be placed at regular intervals so that the starting point of a track can be determined when making a microphone recording. This function is called the TIME AUTO MARK function.

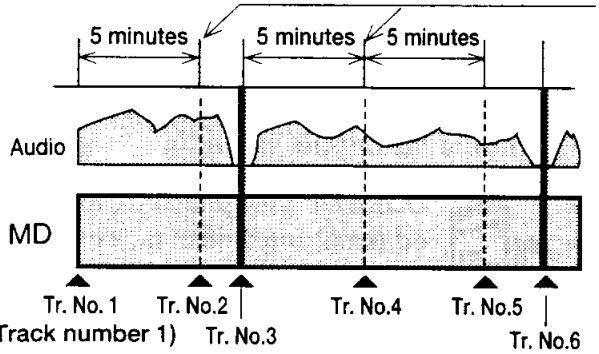


Assigning a TIME AUTO MARK

During Microphone Synchro Recording

TIME AUTO MARK
(set at 5-minute intervals in this example)

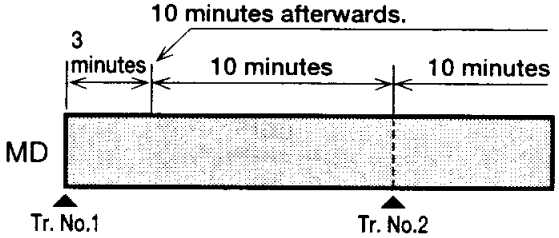
A TIME AUTO MARK is assigned 5 minutes after the previously assigned track number.



-------- : Track number assigned by TIME AUTO MARK function
——— : Track number assigned because of 3-second blank in audio

Changing the TIME AUTO MARK setting

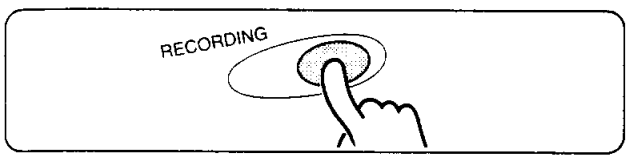
When the setting has been changed to 10 minutes during recording, a TIME AUTO MARK will be assigned 10 minutes afterwards.



During Microphone Manual Recording

A TIME AUTO MARK is assigned every 5 minutes (when the TIME AUTO MARK setting is 5 minutes).

1 Engage Record Standby status.



- Connect a microphone, insert a recordable MiniDisc, and press the **RECORDING** key.

2 Press the EDIT/AUTO MARK/TIME MARK key.

Operation changes as follows each time the key is pressed.

① 5min MARK: The Mark is assigned every 5 minutes
② 3min MARK: The Mark is assigned every 3 minutes
③ MARK OFF: The Mark is not assigned
④ 10min MARK: The Mark is assigned every 10 minutes

- The **TIME AUTO MARK** setting can be changed while recording is in progress.
- The interval between marks may differ slightly from the actual recording time.

Besides basic recording, MiniDiscs have a variety of special functions. Mastering these functions will enhance your enjoyment of MiniDiscs.

Recording Functions

- Checking disc's remaining time → 40
- Recording in Monaural Extended mode → 40
- Re-recording a disc (re-record a previously recorded portion of a disc) → 41

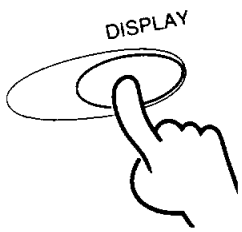
Edit Functions

→Refer to "Edit Functions" in this manual. → 42

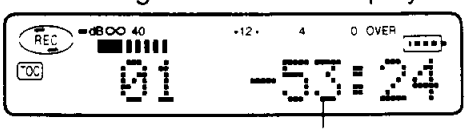
Checking Disc's Remaining Time

You can check how much recording time is remaining on a disc while recording is in progress. (Display Changeover function)

Press the DISPLAY key during Record Standby status or while recording is in progress.



- The time remaining on the disc is displayed.



Time remaining for recording

- Pressing the DISPLAY key again will restore the original status.

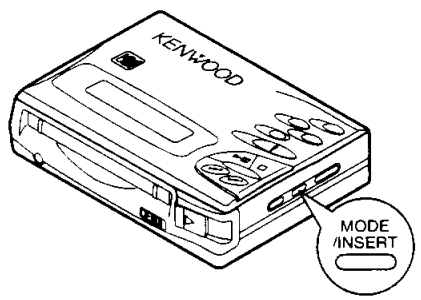
Note

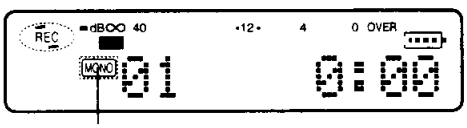
Due to MiniDisc standards, the displayed remaining time of a disc may vary from the actual remaining time. → 66

Recording in Monaural Extended Mode

In Monaural Extended mode the recording time is about twice as long as that of a stereo recording.

Press the key during Record Standby status. (Changeover cannot be made while recording is in progress.)





Illuminates when Monaural Extended mode is engaged.

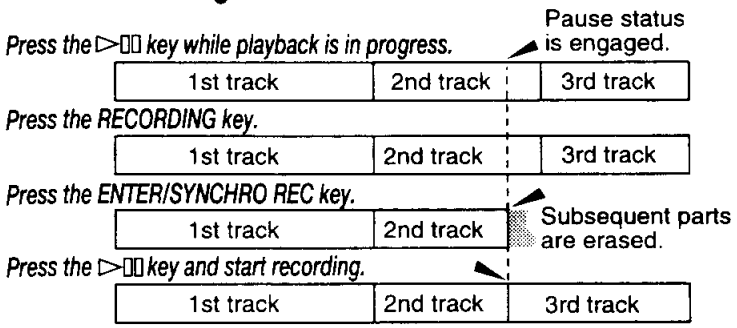
- Status alternates between Monaural Extended mode and Stereo mode each time the key is pressed.
- When recording in Monaural Extended mode has been completed, Stereo mode will be restored automatically.
- A disc that has been recorded in Monaural Extended mode can be played back at double speed. → 24

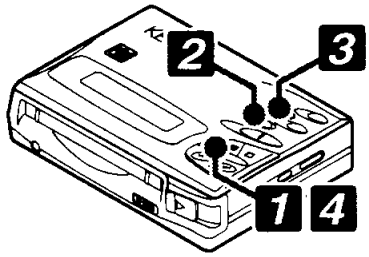
Notes

- In the case of stereo input, the left and right audio will be mixed and recorded. At this time, however, you can listen to the audio in stereo through headphones while you are recording.
- Some discs that have been recorded in Monaural Extended mode cannot be played

A previously recorded portion of a disc can be re-recorded.
- At this time, the track you record over and all subsequent tracks, track names, and other data will be erased.

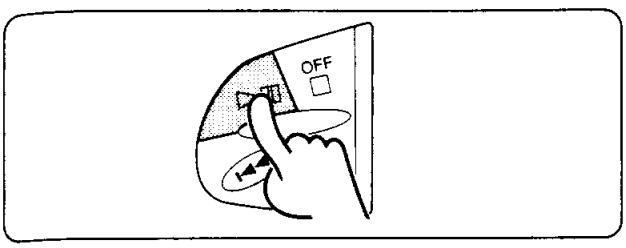
When Re-Recording a Disc





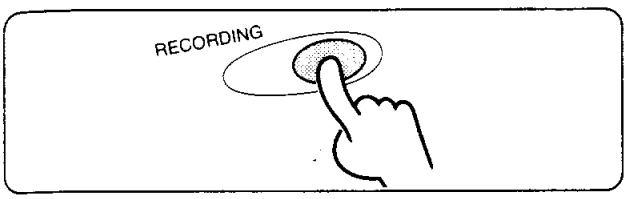
Re-Recording a Disc

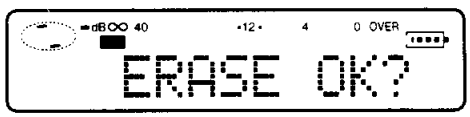
1 Press the ▷II key.



- Pause playback.

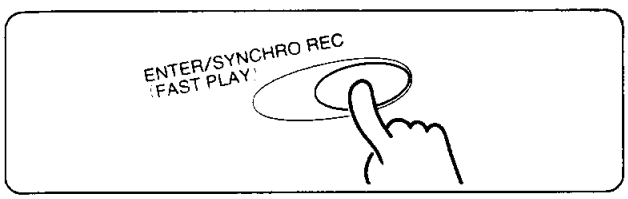
2 Press the RECORDING key.



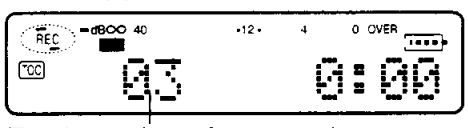


- To stop recording press the ■ (OFF) key.

3 Press the ENTER/SYNCHRO REC key.

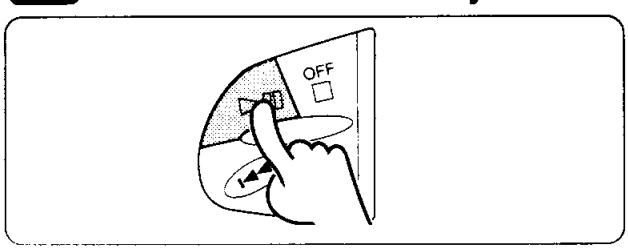


- Everything past the point where operation stopped will be erased.



Track number of next track that will be recorded.

4 Press the ▷II key.



- Start recording.

Note

If there is a track you do not want to erase, use the Move function in Edit mode and move that track in front of the point where recording will start. → 54

Perform Edit functions only by unit operation.

- Similar to CDs, MiniDiscs have a TOC area (refer to page 62), so recordable MiniDiscs can be edited in many ways by means of the TOC. (Edit functions)
- Playback Only MiniDiscs (commercially available music software, etc.) cannot be edited.

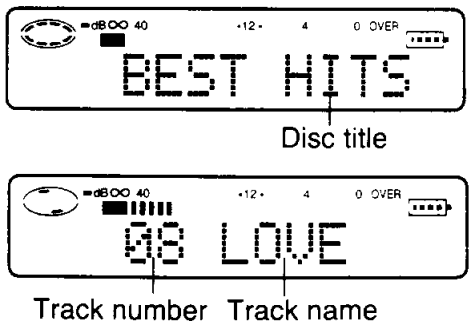
Ways of Editing a Disc

Assigning a Disc Name or Track Name (DISC NAME/Tr NAME Function) → 47

A disc name and track names (Maximum number of tracks: 255) can be assigned to a recorded MiniDisc.

- The English alphabet in lower and upper cases, and symbols can be used.
- When a disc with assigned disc name and track names is played back, the data can be checked on the unit's display.

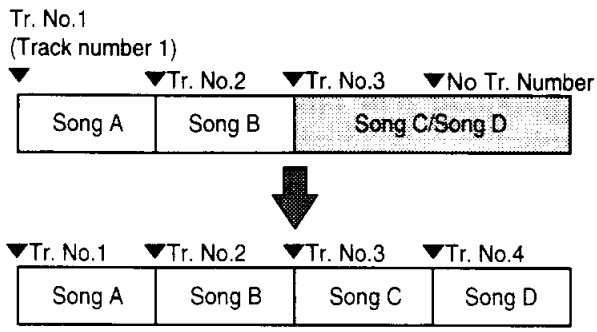
(Unit Display Example)



Dividing Tracks (DIVIDE Function) → 52

A track can be divided at any point and a track number can be added to a track that does not have one.

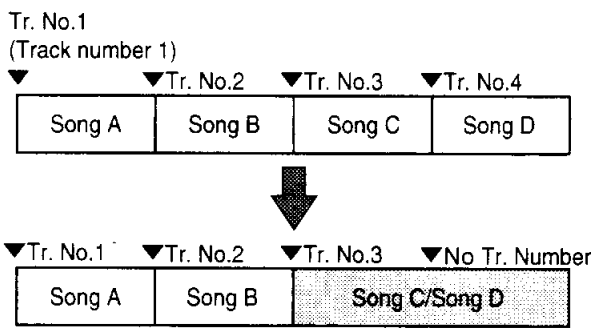
- You can create a track starting point in the middle of a track or while recording a meeting or making other recordings.
- This function is used to assign track numbers between songs at a live concert or other event.



Combining Two Consecutive Tracks (COMBINE Function) → 53

With this function, two consecutive tracks can be combined into one track, and when a single track has been mistakenly given two track numbers, the track can be renumbered.

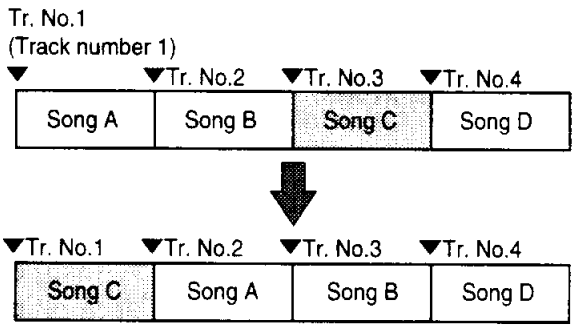
- This function is used to correct track numbers that are unnecessary, such as when the sound level in classical or other music is extremely low and a track number is automatically assigned.



Moving a Track (MOVE Function) → 54

A designated track can be moved to any other location.

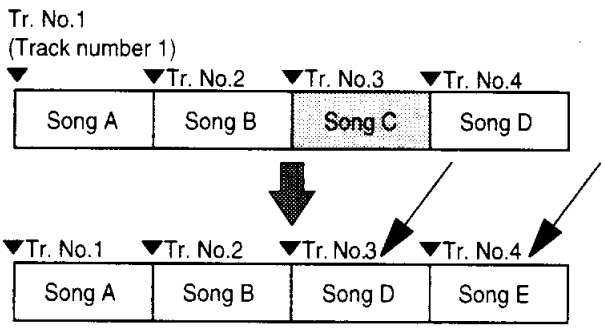
- The track numbers of the tracks past the track that has been moved will change automatically.



Erasing One Track at a Time (ERASE Function)/Erasing All Tracks (ALL ERASE Function) → 56

Designated tracks can be erased one at a time (ERASE) or all at once (ALL ERASE).

- Once erased, a track cannot be restored; make sure you want to erase the track, therefore, before erasing it.

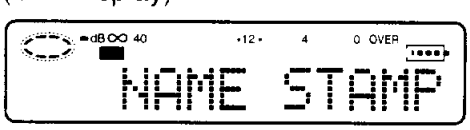


Copying Written Data in its Entirety (NAME STAMP Function) → 58

Character information can be copied to dubbed disc in its entirety

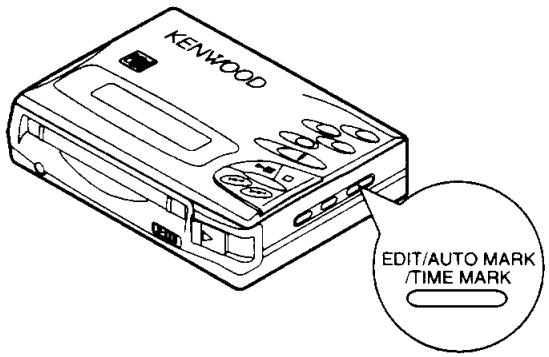
- The character information on a MiniDisc that you want to record (master MiniDisc containing tracks and character information) can be copied in its entirety.

(Unit Display)



Edit functions can be selected by repeatedly pressing the EDIT/AUTO MARK/TIME MARK key during Stop status or Pause status.

- Functions that can be selected during Stop status and those that can be selected during Pause status are partially different.



Selecting Edit Functions

In Stop Status

Each press of the key switches the mode as follows:

① Normal display
② **DISC NAME** : Disc name function
③ **COMBINE** : Combine function
④ **ERASE** : Erase function
⑤ **MOVE** : Move function
⑥ **Tr NAME** : Track name function
⑦ **ALL ERASE** : All Erase function
⑧ **NAME STAMP** : Name Stamp function

In Pause Status

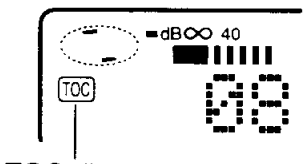
Each press of the key switches the mode as follows:

① Normal display
② **DIVIDE** : Divide function
③ **COMBINE** : Combine function
④ **ERASE** : Erase function
⑤ **MOVE** : Move function
⑥ **Tr NAME** : Track name function
⑦ **ALL ERASE** : All Erase function
⑧ **NAME STAMP** : Name Stamp function

Writing Edited Contents (Writing TOC Data)

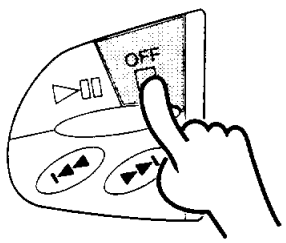
When a disc has been edited, "TOC" will appear in the display. This indicates that the edited contents have not been written to the MiniDisc.
To write the edited contents to the MiniDisc, press the ■ (OFF) key and turn the power off.

Stop editing.



TOC display

Turn the power off.

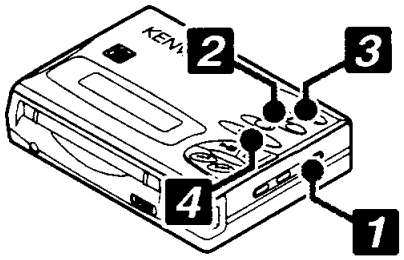


Note

After "TOC EDIT!" is displayed, the power will turn off. Do not disconnect the power cord or impact the unit while "TOC EDIT!" is displayed, for the edited contents may not be correctly written to the disc.

The MiniDisc can be assigned a name (disc name) and each track can be given a name.

- The disc name or a track name can be up to 100 characters long. (The total allowable number of characters on one MiniDisc, including disc name and track names, is about 1700.)



Assigning a Disc Name or a Track Name.

Selecting Characters

Before beginning character input, we should understand how to select characters.

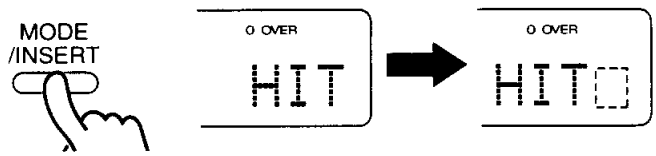
(1) Use the **CHARACTER/TIME** key when selecting types of characters.

(2) Use the **VOLUME/NAME** key when selecting individual characters.

Selecting with the CHARACTER/TIME key	Selecting with the VOLUME/NAME key
Alphabet and numbers → Symbols	Space ABC ····· XYZ012 ···· 89 → Returns to space Space / ' . , − + : ( ) & < > ! ? ; " # $ % * = @ _ ` → Returns to space (The symbols at left can be used.)

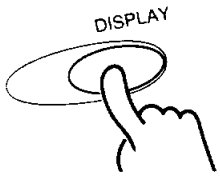
Inserting a Space

- When a space is selected with the **VOLUME/NAME** key or the **MODE/INSERT** key is pressed, one space will be inserted.



Changing to Lower Case

- To change to lower case after inserting a capital, press the **DISPLAY** key.



Letters which can be converted to lower-case letters.

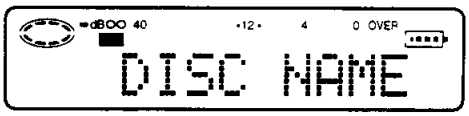
A B C ···· X Y Z
↓ ↓ ↓ ↓ ↓ ↓
a b c ···· x y z

Refer to page 46 for methods of selecting characters.

Assigning a Disc Name (DISC NAME Function)

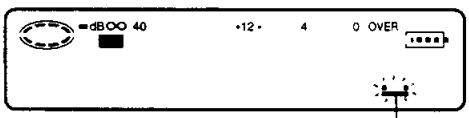
1 Select DISC NAME during Stop status.

- Press the **EDIT/AUTO MARK/TIME MARK** key repeatedly during Stop status until **"DISC NAME"** is displayed.



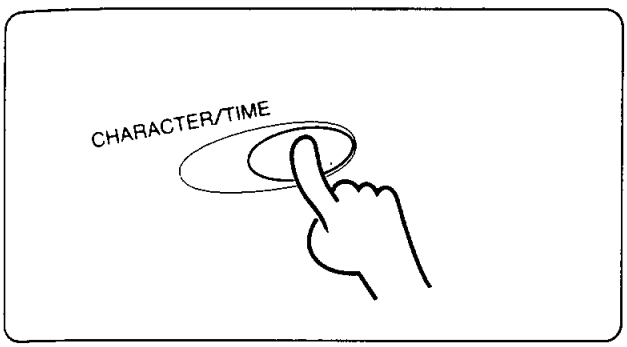
2 Press the ENTER/SYNCHRO REC key.

- Character input is now possible.
- To cancel the operation, press the ■ (OFF) key.



Flashing cursor

3 Press the CHARACTER/TIME key and select the type of characters you want to input.

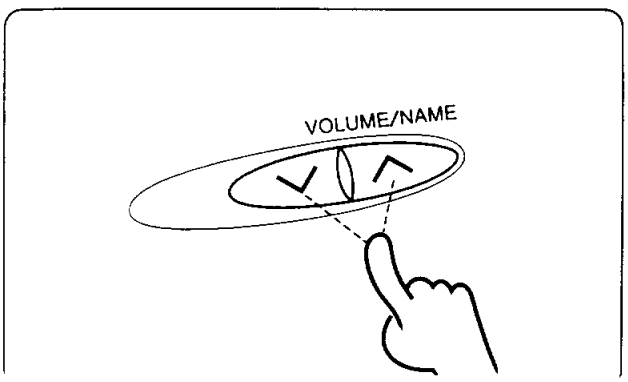


- Character types changeover each time the **CHARACTER/TIME** key is pressed.

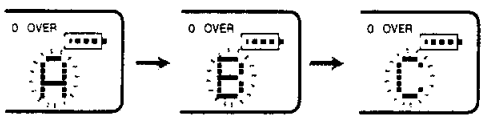
① ABC
② !"#

- Three characters of the selected type are displayed for about 1 second, and then the cursor is displayed.

4 Select the character you want to input.



- Press the **VOLUME/NAME** key repeatedly and select the characters you want to input.

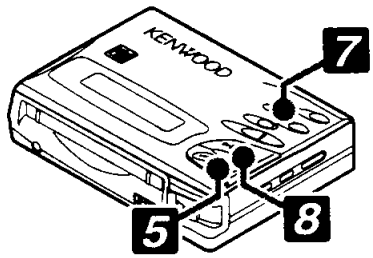


Changes each time the key is pressed.

- If the key is pressed and held down, the characters will change continuously.

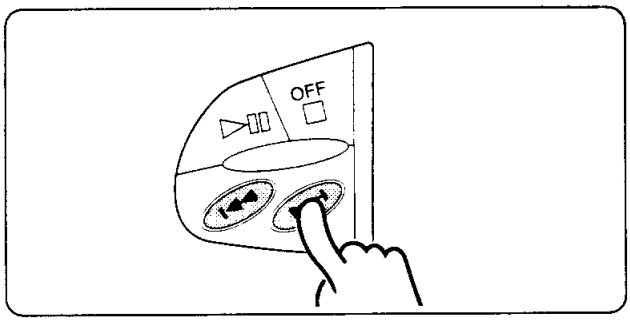
Continued on following page

ENGLISH

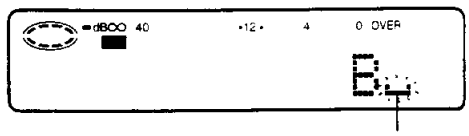


ENGLISH

5 Press the ▶▶I key once the character you want to input is displayed.



- The character will move to the left of the cursor.



Location of next character to be input.

6 Continue inputting characters in the same way.

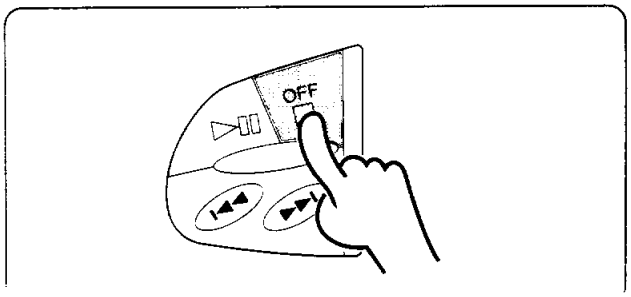
Repeat Steps 3 to 5.

When inputting the same type of characters, Step 3 does not have to be repeated.

7 Press the ENTER/SYNCHRO REC key.

- After all characters have been input, press the **ENTER/SYNCHRO REC** key.
- The disc name will be recorded.

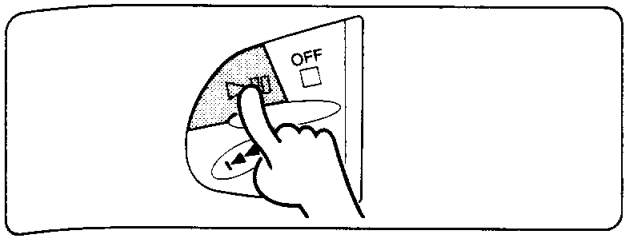
8 Turn the power off. (TOC is recorded.)



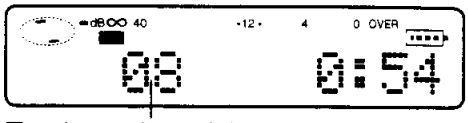
- When editing has been completed, press the ■ (**OFF**) key. The TOC will automatically be recorded and the power will turn off.
- Before turning the power off, other editing operations can also be performed.

Assigning a Track Name (Tr Name Function)

1 Play the track you want to name and then engage Pause status.

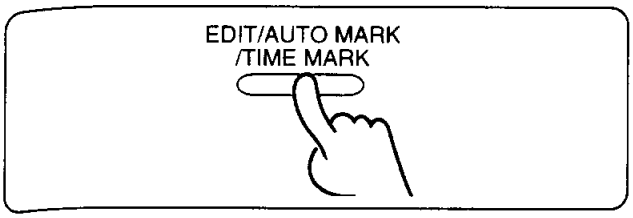


- Pressing the ▷II key while the track you want to name is being played back will engage Pause status.



Track number of the track you want to name.

2 Select Tr NAME.

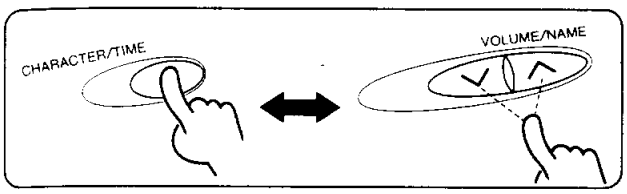


- Press the **EDIT/AUTO MARK/TIME MARK** key repeatedly during Stop status until "**Tr NAME**" is displayed.
- While Stop status is engaged, a track number can be selected with the I◄◄, ►►I keys.

3 Press the ENTER/SYNCHRO REC key.

- Character input is now possible.
- To cancel the operation, press the ■ (OFF) key.

4 Input characters.

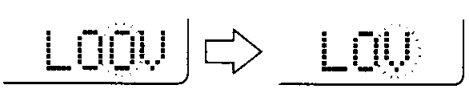


Input characters according to Steps 3 to 7 on pages 47 to 48.

When an Incorrect Character Has Been Input

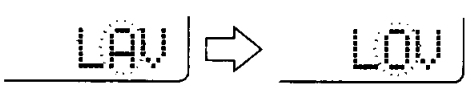
To erase a character

Press either the I◄◄ key or the ►►I key and move the cursor to the character you want to erase and then press the **B.BOOST/ DELETE** key.

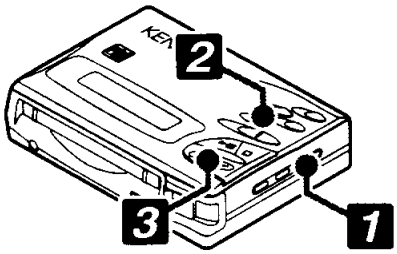


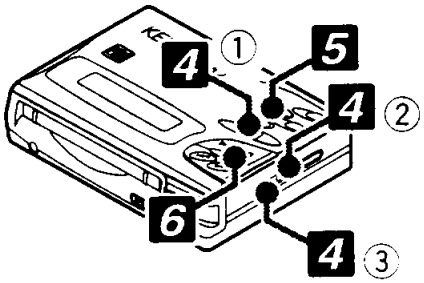
To change a character

Press either the I◄◄ key or the ►►I key and move the cursor to the character you want to change and then input the character you want.



ENGLISH





Correcting a Disc Name or Track Name

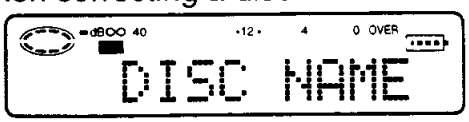
ENGLISH

1 Select DISC NAME or Tr NAME.

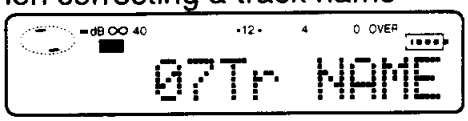
In Stop status or Pause status

- Press the **EDIT/AUTO MARK/TIME MARK** key repeatedly until **"DISC NAME"** or **"Tr NAME"** is displayed.

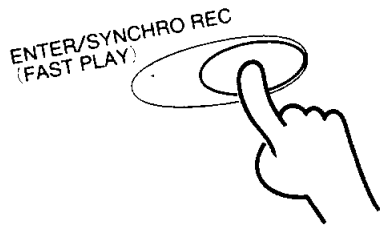
When correcting a disc name



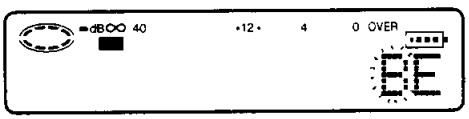
When correcting a track name



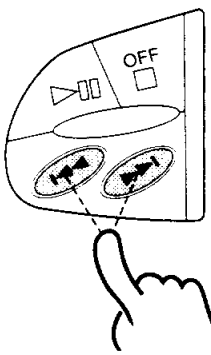
2 Press the ENTER/SYNCHRO REC key.



- Characters can now be corrected.



3 Move the cursor to the character you want to correct.



- Press the ⏮ key or the ⏭ key and move the cursor until it is over the character you want to correct.

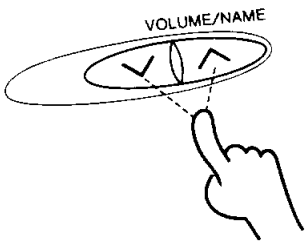
When adding a character

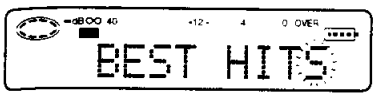
Move the cursor to the character to the right of the place where you want to add a character.

4 Select the character you want to input.

① When changing a character

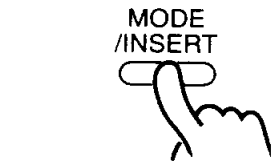
- Select the character you want to input with the **VOLUME/NAME** key.

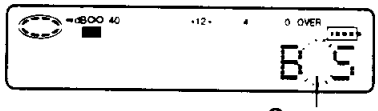




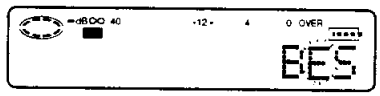
② When adding a character

❶ Press the **MODE/INSERT** key

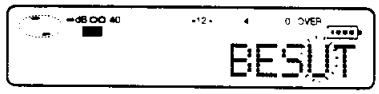




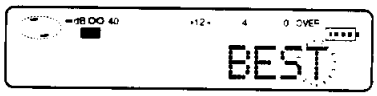
❷ Select the character you want to input with the **VOLUME/NAME** key.



③ When deleting a character

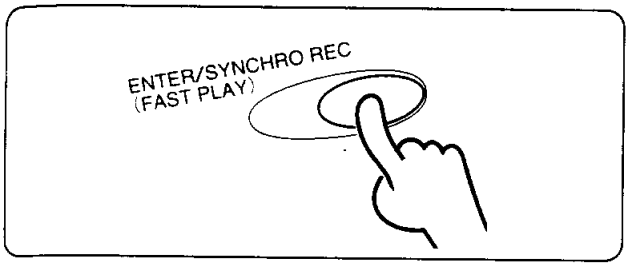


- Press the **B.BOOST/DELETE** key.

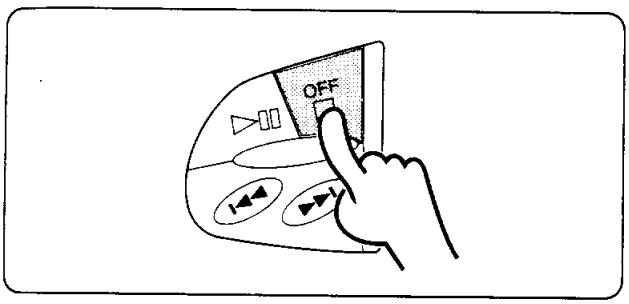


- The character will be deleted.

5 Press the ENTER/SYNCHRO REC key.



6 Turn the power off. (TOC is recorded.)



- When editing has been completed, press the ■ (**OFF**) key. The TOC will automatically be recorded and the power will turn off.
- Before turning the power off, other editing operations can also be performed.

Note

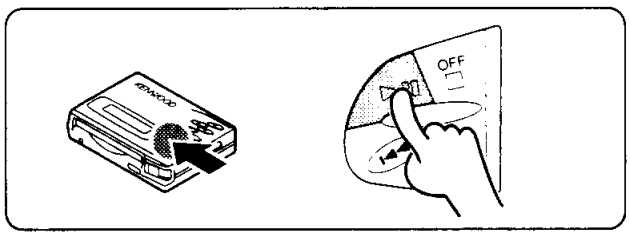
Do not disconnect the power cord or impact the unit while **"TOC EDIT!"** is displayed, for the edited contents may not be correctly written to the disc.

ENGLISH

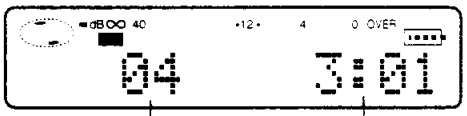
One track can be divided into two tracks at any point.

Dividing a Track (DIVIDE Function)

1 Pause playback at the point where you want to divide the track.



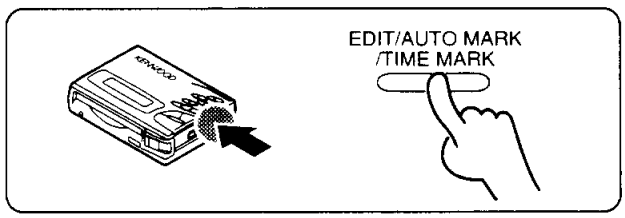
- Press the ▷II key at the point where you want to divide the track.



Number of track to be divided

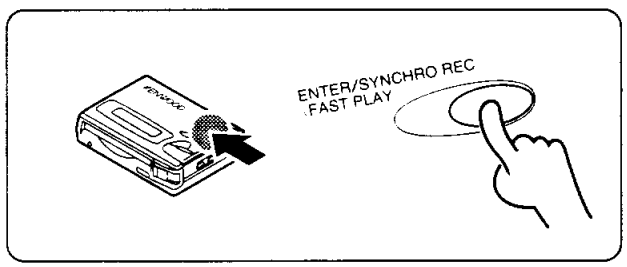
Portion to be divided

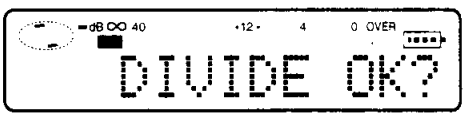
2 Select DIVIDE.



- Press the **EDIT/AUTO MARK/TIME MARK** key repeatedly until "**DIVIDE**" is displayed.

3 Press the ENTER/SYNCHRO REC key.

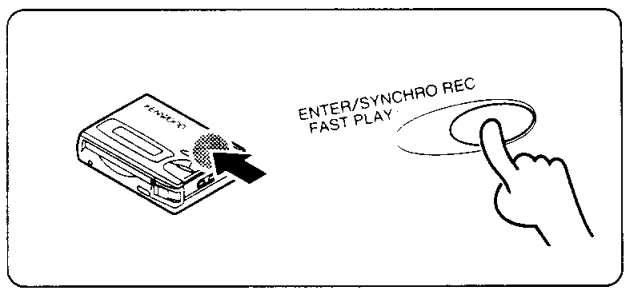




A confirmatory message regarding whether or not the track should be divided is displayed.

- To cancel the operation, press the ■ (OFF) key.

4 Press the ENTER/SYNCHRO REC key again.



- The track is divided and Pause status is engaged at the start of the second of the two tracks.
- Each track number following the divided track is lowered by one.
- If the track has a track name, the divided tracks will have the same name.
- When a track is divided, both tracks will have the same recording date and time.

When editing has been completed, press the ■(OFF) key and turn the power off. The TOC will be recorded.

Notes

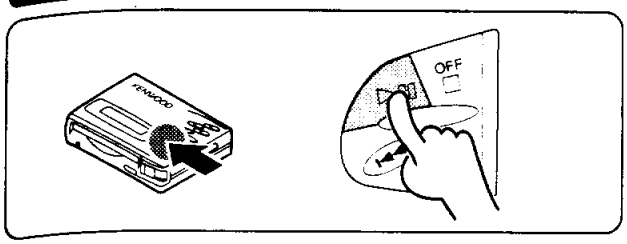
- Although tracks can be divided up to a maximum of 255 tracks, which is the unit's capacity, it may not be possible to divide a track even if the maximum number has not been reached. (**TOC FULL** → 65)
- When the area where track names and other data are stored is full, subsequent track names may be lost when a track is divided.**TOC FULL** → 65)

ENGLISH

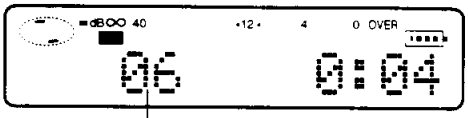
Two consecutive tracks can be combined into one.

Combining Tracks (COMBINE Function)

1 Playback to the end of the second track and then engage Pause status.

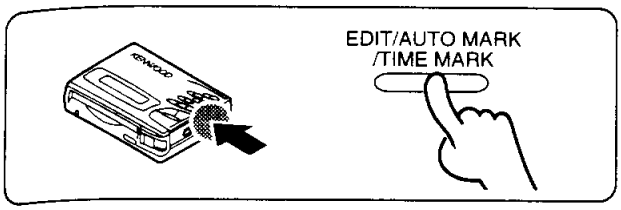


- Playback to the end of the second of two consecutive tracks and then press the ▷/II key.

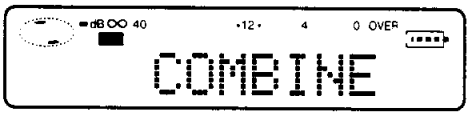


When combining track numbers 5 and 6

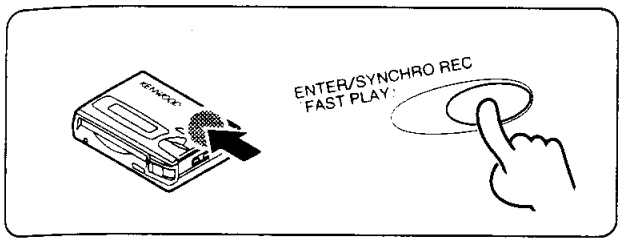
2 Select COMBINE.

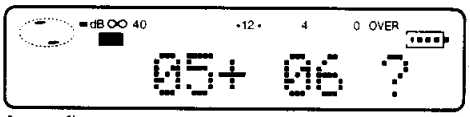


- Press the **EDIT/AUTO MARK/TIME MARK** key repeatedly until "**COMBINE**" is displayed.



3 Press the ENTER/SYNCHRO REC key.

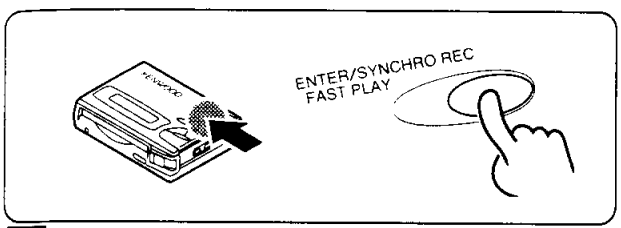




A confirmatory message regarding whether or not the tracks should be combined is displayed.

- To cancel the operation, press the ■ (OFF) key.

4 Press the ENTER/SYNCHRO REC key again.



- The tracks are combined and Pause status is engaged at the start of the combined track.
- Each subsequent track number is increased by one.
- If the tracks to be combined have track names, the name of the first of the two tracks is assigned to the combined track. If that track does not have a track name, the name of the second of the two tracks is assigned to the combined track.
- If the first of the two tracks has a recording date and time, they are assigned to the combined track.
- If the first of the two tracks does not have a recording date and time, a recording date and time will not be assigned to the combined track.

■ When Combining Non-Consecutive Tracks

After moving the tracks with the Move function so that they are consecutive, combine them with the Combine function. → 54

When editing has been completed, press the ■(OFF) key and turn the power off. The TOC will be recorded.

Notes

The following tracks cannot be combined:

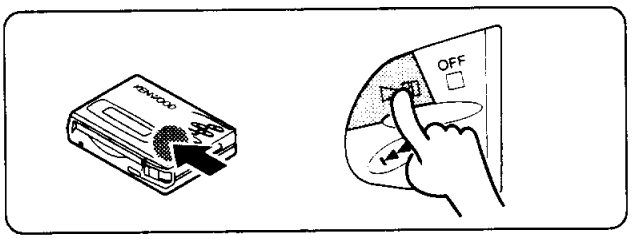
- tracks recorded in Monaural Extended mode and tracks recorded in Stereo mode;
- tracks recorded with a digital connection and tracks recorded with an analog connection;
- some tracks that are shorter than 12 seconds in length.

ENGLISH

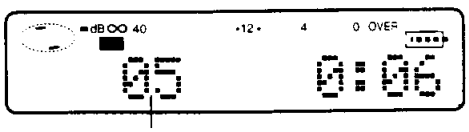
A designated track can be moved to a desired location.

Moving a Track (MOVE Function)

1 Playback the track you want to move and engage Pause status.

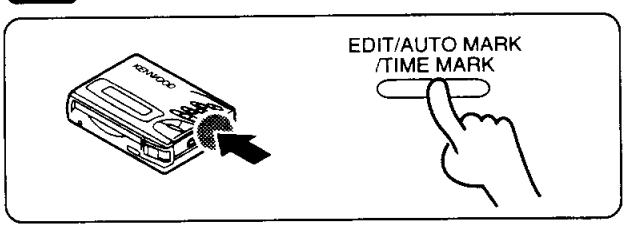


- Playback the track you want to move and press the ▷II key, engaging Pause status.

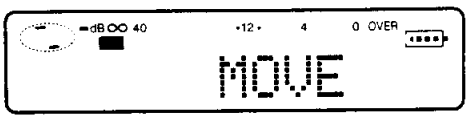


When moving track number 5

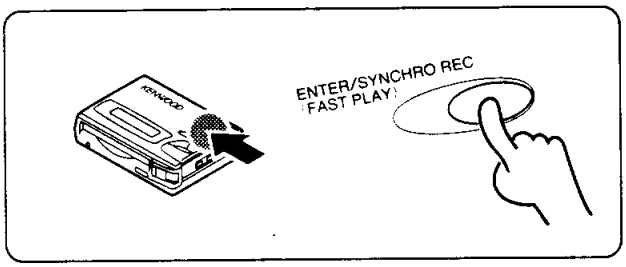
2 Select MOVE.

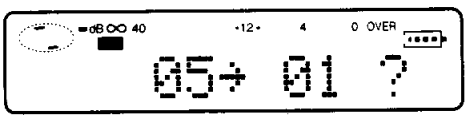


- Press the **EDIT/AUTO MARK/TIME MARK** key repeatedly until "**MOVE**" is displayed.



3 Press the ENTER/SYNCHRO REC key.

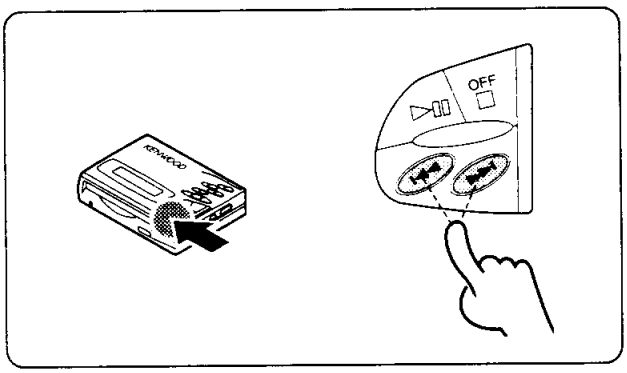




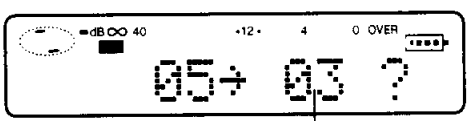
A confirmatory message regarding whether or not the tracks should be moved is displayed.

- To cancel the operation, press the ■ (OFF) key.

4 Select the destination.



- Press either the I◀◀ key or the ▶▶I key and select the track number you want to move the track to.



When moving to track number 3

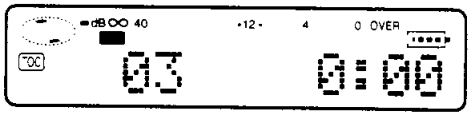
To increase track numbers:
Press the ▶▶I key.

To decrease track numbers:
Press the I◀◀ key

ENGLISH

5 Press the ENTER/SYNCHRO REC key.

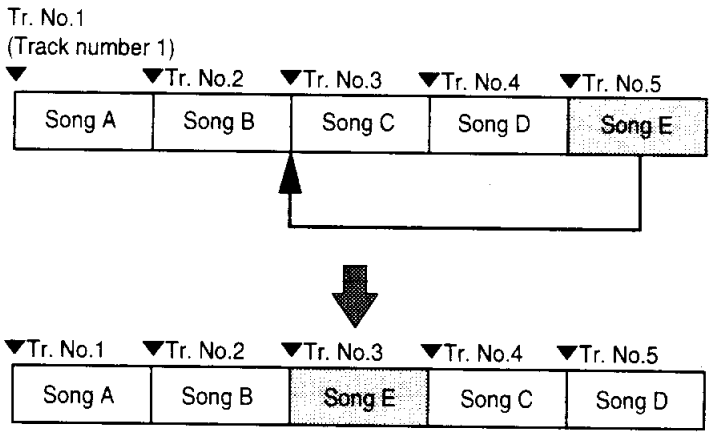
- The track is moved and Pause status is engaged at the start of that track.



When editing has been completed, press the ■ (OFF) key and turn the power off. The TOC will be recorded.

After a Track Has Been Moved

- The track numbers past the moved track are automatically adjusted.

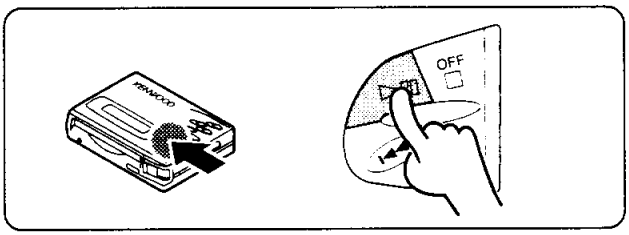


ENGLISH

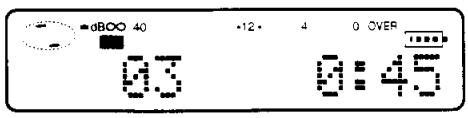
This function erases one track at a time.
- To erase all tracks, use the ALL ERASE function described on the following page.

Erasing One Track at a Time (ERASE Function)

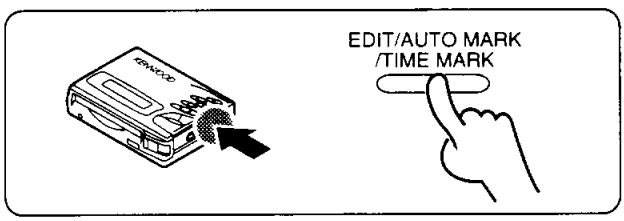
1 Playback the track you want to erase and engage Pause status.



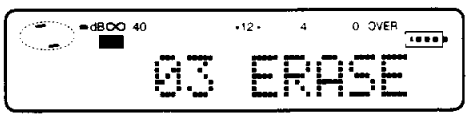
- Playback the track you want to erase and press the ▷▯▯ key, engaging Pause status.



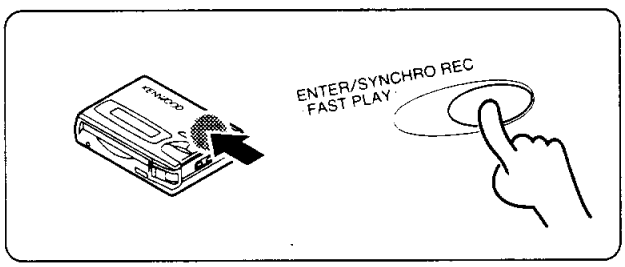
2 Select ERASE.



- Press the **EDIT/AUTO MARK/TIME MARK** key repeatedly until "**ERASE**" is displayed.



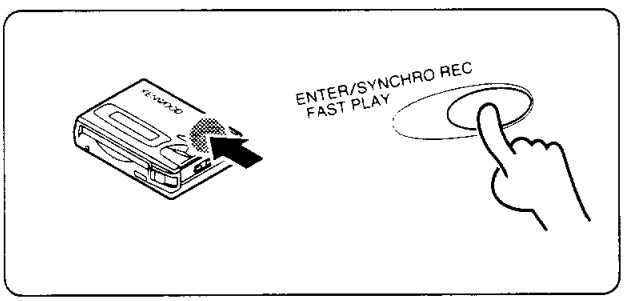
3 Press the ENTER/SYNCHRO REC key.



A confirmatory message regarding whether or not the track should be erased is displayed.

- To cancel the operation, press the ■ (OFF) key.

4 Press the ENTER/SYNCHRO REC key again.



- The track is erased and the Stop status is engaged at the start of the next track.
- To erase another track, repeat Steps **1** to **4**.
- Each subsequent track number is increased by one.

When editing has been completed, press the ■(OFF) key and turn the power off. The TOC will be recorded.

Note

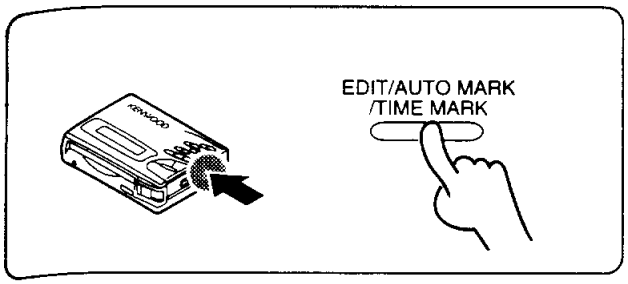
Once erased, a track cannot be restored; make sure you want to erase the track, therefore, before erasing it.

ENGLISH

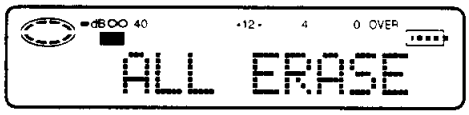
This function erases all the tracks on a MiniDisc (including disc title, track names, etc.).
- To erase one track at a time, use the ERASE function described on the previous page.

Erasing All Tracks (ALL ERASE Function)

1 Select ALL ERASE.

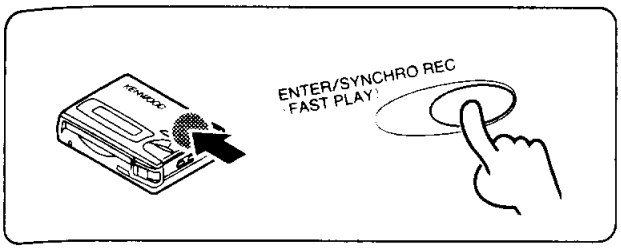


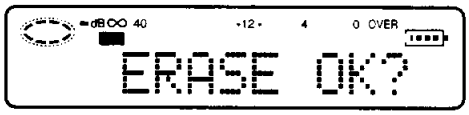
- In Stop status, press the **EDIT/AUTO MARK/ TIME MARK** key repeatedly until "**ALL ERASE**" is displayed.



- This can also be selected in Stop status, by depressing the **EDIT/AUTO MARK/TIME MARK** key for at least 2 seconds.

2 Press the ENTER/SYNCHRO REC key.

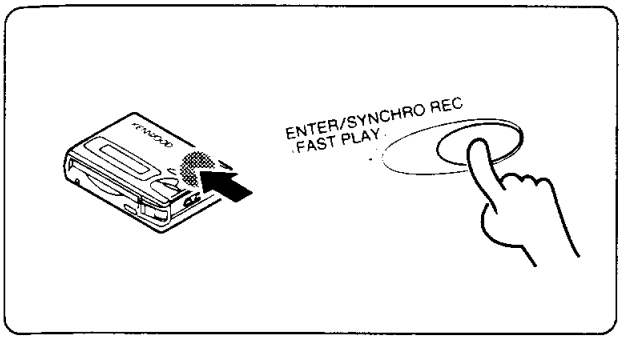




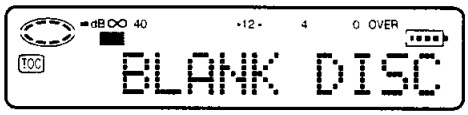
A confirmatory message regarding whether or not the track should be erased is displayed.

- To cancel the operation, press the ■ (OFF) key.

3 Press the ENTER/SYNCHRO REC key again.



- All tracks are erased.

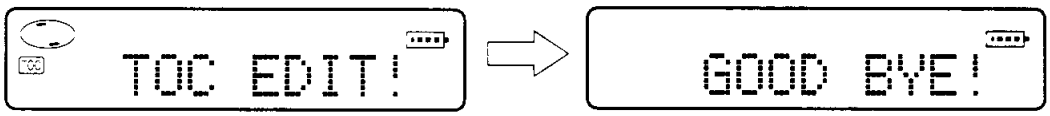


Note

Once erased, the tracks cannot be restored; make sure you want to erase all the tracks, therefore, before erasing them.

When Editing Has Been Completed

Press the ■(OFF) key. The TOC will automatically be recorded and the power will turn off.

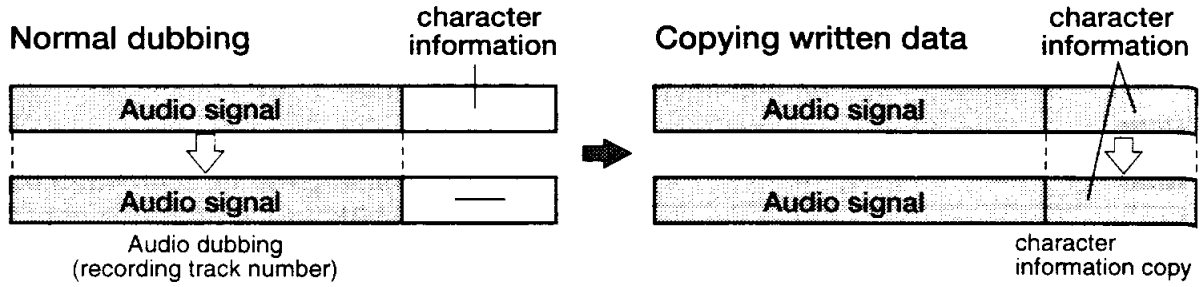


When "TOC EDIT" Is Displayed

- Do not disconnect the power cord or impact the unit while "TOC EDIT" is displayed during editing, for the edited contents may not be correctly written to the disc.

ENGLISH

Disc name, track names, and other character information on a previously recorded MiniDisc (master MiniDisc) can be copied in their entirety to a recordable MiniDisc (Copy MiniDisc). This is called the NAME STAMP function.



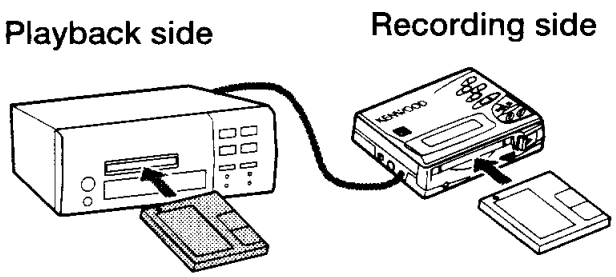
Notes

Written data cannot be copied from the following MiniDiscs:

- a Playback Only MiniDisc;
- when the total number of tracks on the master MiniDisc and that on the recordable MiniDisc are not the same.

Copying character information in its Entirety (NAME STAMP Function)

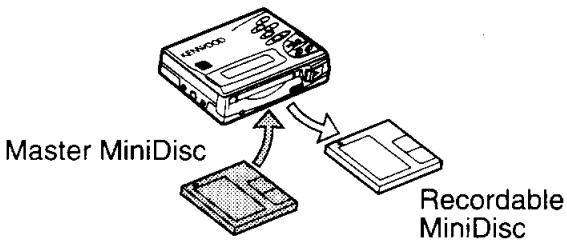
1 Record the audio from the master MiniDisc to the recordable MiniDisc. (Refer to pages 30 to 33.)



At this time only the audio will be dubbed, written data will not be copied.

- Make sure the total number of tracks on the master MiniDisc and that on the recordable MiniDisc are the same. If they are the same, tracks can be divided or combined using Edit functions. (Refer to pages 52 to 53.)

2 Insert the master MiniDisc into the DMC-G7R.

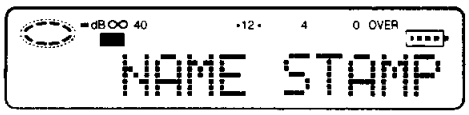


- When recording has been completed, remove the recordable MiniDisc and insert the master MiniDisc into the unit (DMC-G7R).

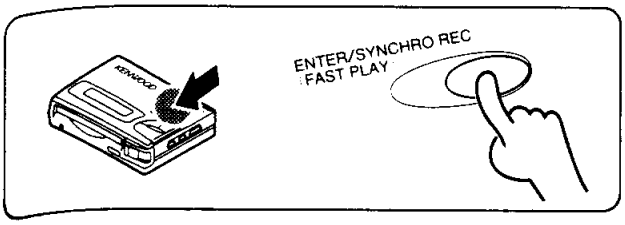
Label master MiniDiscs and recordable MiniDiscs so that they are distinguishable.

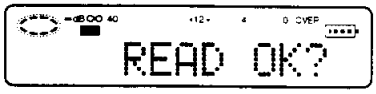
3 Select NAME STAMP.

- In Stop status, press the **EDIT/AUTO MARK/ TIME MARK** key repeatedly until "**NAME STAMP**" is displayed.



4 Press the ENTER/SYNCHRO REC key.

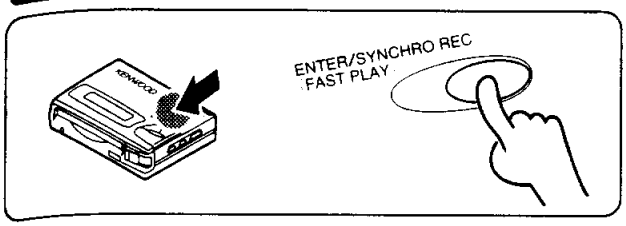




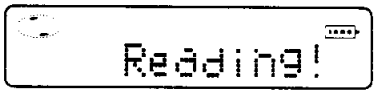
A confirmatory message regarding whether or not the character information on the master MiniDisc should be read is displayed.

- To cancel the operation, press the ■ (OFF) key.

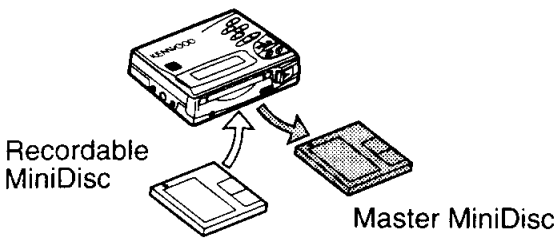
5 Press the ENTER/SYNCHRO REC key again.



- The character information on the master MiniDisc are read.



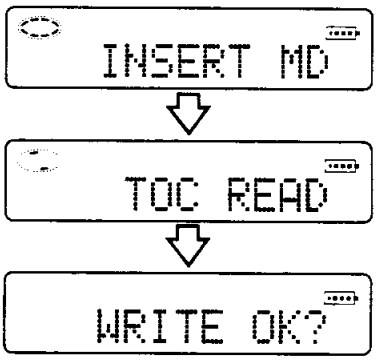
6 Change MiniDiscs when "CHANGE MD" is displayed.



Note

When removing the master MiniDisc, do not turn the power off, for the operation will be canceled.

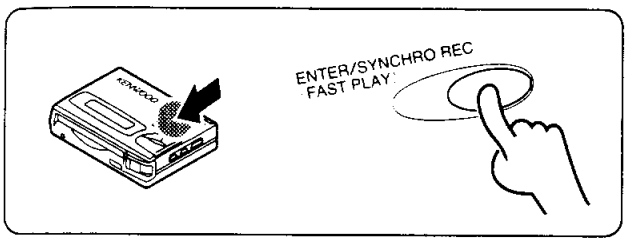
- When "CHANGE MD" is displayed, remove the master MiniDisc and insert a recordable MiniDisc.

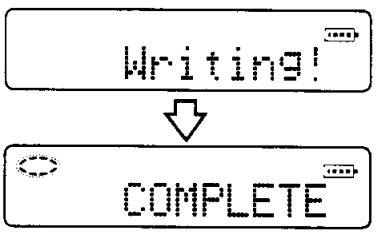


A confirmatory message regarding whether or not data should be written is displayed.

- To cancel the operation, press the ■ (OFF) key.

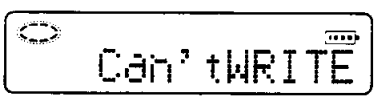
7 Press the ENTER/SYNCHRO REC key.





- After the character information are recorded, Stop status is engaged.

- If the total number of tracks on the master MiniDisc is not the same as that on the recordable MiniDisc, the message at right will be displayed and the power will turn off.
- At this time, edit the MiniDiscs so that the total number of tracks is the same, and repeat the procedure from Step 2.



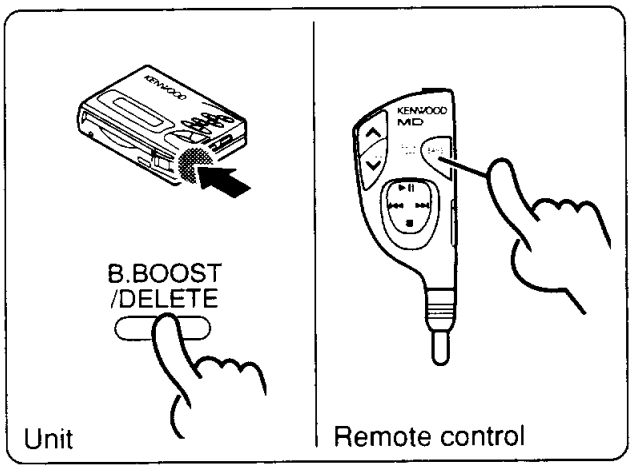
ENGLISH

ENGLISH

Canceling the Operating Tone (Beep)

A beep sounds each time an operation key is pressed during playback or Stop status. This beep can be canceled or activated.

Press and hold down the B.BOOST/DELETE key on the unit or the BASS key on the remote control for at least 2 seconds.



Operation changes as follows each time the key is held down for 2 seconds.

① **BEEP OFF:** Beep does not sound when a key is operated.

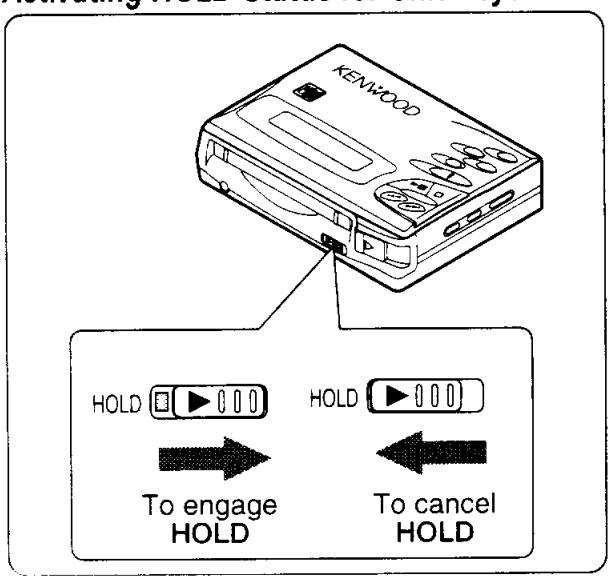
② **BEEP ON:** Beep sounds when a key is operated.

The beep **ON/OFF** status is stored even after the power has been turned off.

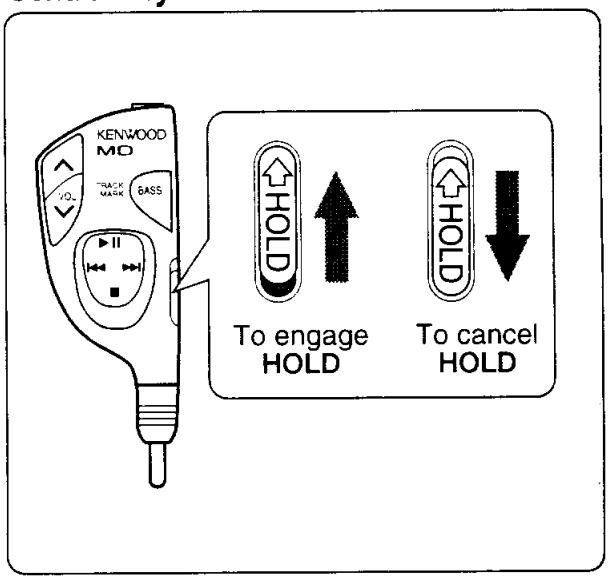
Avoiding Faulty Operation (HOLD)

- When you are operating the unit on a train or while you are walking, you can prevent faulty operation due to accidental key operation. (HOLD Function)
- This function also prevents the power from coming on unintentionally when carrying the unit with the power off, thus saving battery wear. (Both the unit and remote control should be carried with the HOLD function engaged.)

Activating HOLD Status for Unit Keys

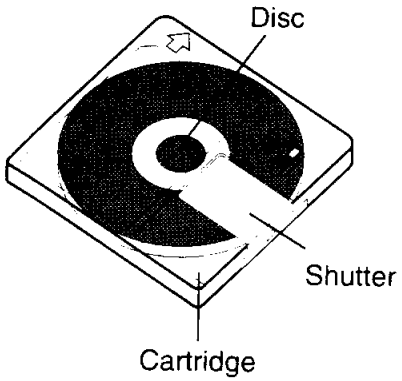


Activating HOLD Status for Remote Control Keys



What is a Mini Disc ?

Learning the basics of MiniDiscs will help you understand their operation.



Small Size

- With a diameter of 64mm, the disc fits into a cartridge 68mm x 72mm in size, so it is easy to keep clean and damage-free, and it can be handled easily.

Digital Recording and Playback

- Since it is recorded with the same digital method used for CDs, the sound quality rivals that of the CD.

Up to 74 Minutes of Stereo Recording or Playback

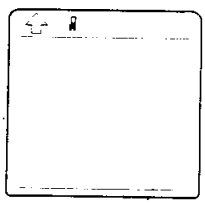
- Up to 148 minutes of monaural Recording or Playback and up to 74 minutes of stereo Recording or Playback are possible.

Types of MiniDiscs

Two types of MDs are available: MiniDiscs for Playback only and MiniDiscs for Recording and Playback.

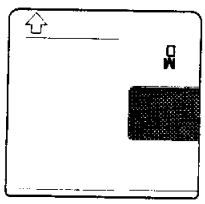
Playback Only MiniDisc

This disc cannot record.



- Commercial music software and other Playback Only discs are used.
- An optical pickup similar to that of the CD is used for Playback.

Recordable MiniDisc



- A laser beam and a magnetic device are used to record on a recordable blank disc. Also, since the recording is digital, sound quality will not deteriorate, no matter how many times the disc is recorded.

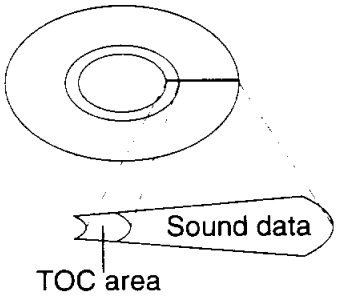
The New Technology of MiniDiscs

Sound Compression Technology

ATRAC (Adaptive TRansform Acoustic Coding)

The MD is about half the size of a CD but has about the same recording time. This is due to sound compression technology (ATRAC) based on the science of acoustic psychology. With this technology, sound data can be reduced by about 1/5, without losing acoustic sound quality.

High-Speed Track Selection (TOC)



With a MiniDisc, a desired song can be selected at a high speed, as in the case of a CD. This is because the song numbers and titles are stored in the so-called TOC area, and based on these data, a song can be selected instantly.

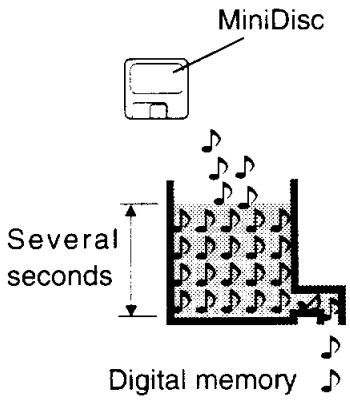
The TOC (Table of Contents) area functions similarly to the Table of Contents in a book.

Sound-skip prevention memory

During Playback the unit accumulates signals in its memory for a given period of time. As a result, music can be played back without sound skips - even when the unit receives an impact from an external source or when the signal from the optical pickup is interrupted.

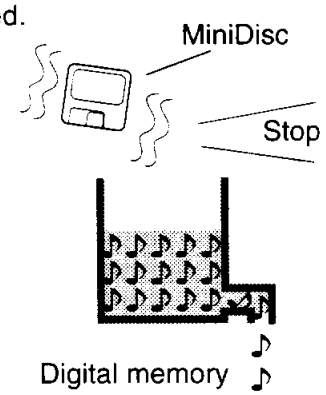
During Normal Playback

- Sound is stored in the memory during Playback.



When Vibration Occurs

- When the readout from disc is interrupted momentarily due to vibration or shock, the reproduced sound from the memory will not be interrupted.



Auto Power Save Function

This unit is equipped with a Nonskip Playback Memory to minimize the number of skips that occur during playback because of impacts.

In order to conserve battery life when the unit is powered by rechargeable batteries or alkaline batteries, a short audio signal storage time is set. This is called the Auto Power Save function. When the unit is used in locations where impacts are likely to occur, skips can be minimized by turning the Auto Power Save function off. With the function off, the total continuous playing time of the unit will be about 20% less than normal.

Changing the Auto Power Save Setting

Press and hold down the DISPLAY key on either the unit or the remote control for at least 2 seconds. Operation changes as follows each time the key is pressed:

① "Psave off" : Auto Power Save function is off (data storage time is about 10 seconds)

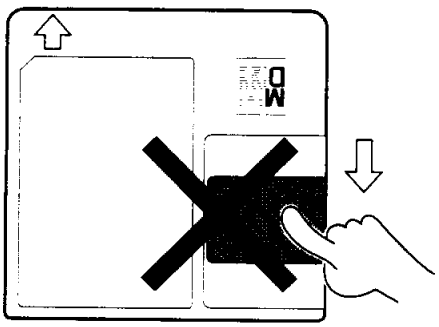
② "AUTO Psave" : Auto Power Save (battery life save mode)

Handling of MiniDiscs

Since the MD is in a cartridge, it can be handled without worrying about dirt or fingerprints. But soiling, warping, or other damage to the cartridge will result in faulty operation. Take the following precautions to ensure that you will always be able to enjoy the music on your MDs.

Do Not Touch the MD Directly

- Do not open the shutter and directly touch the MD. Forcing the shutter open will damage it.



Storage Location

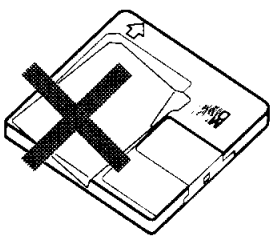
- Do not store MDs in direct sunlight or in hot locations such as car interiors or in humid locations.
- Do not leave MDs on a beach or other location where sand or dirt can enter the cartridge.

Care and Maintenance

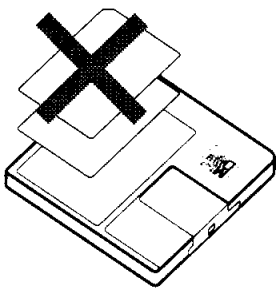
- Using a dry cloth, wipe dirt or dust off the cartridge at regular intervals.

Affixing the Label

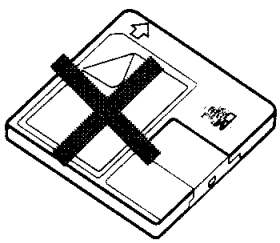
- When affixing a label on the cartridge, take the following precautions and affix it properly.
- If the label is not properly affixed, it may get stuffed into the cartridge, making it impossible to remove the disc.



Properly affix the label in its prescribed place.



Do not affix a label over another label.



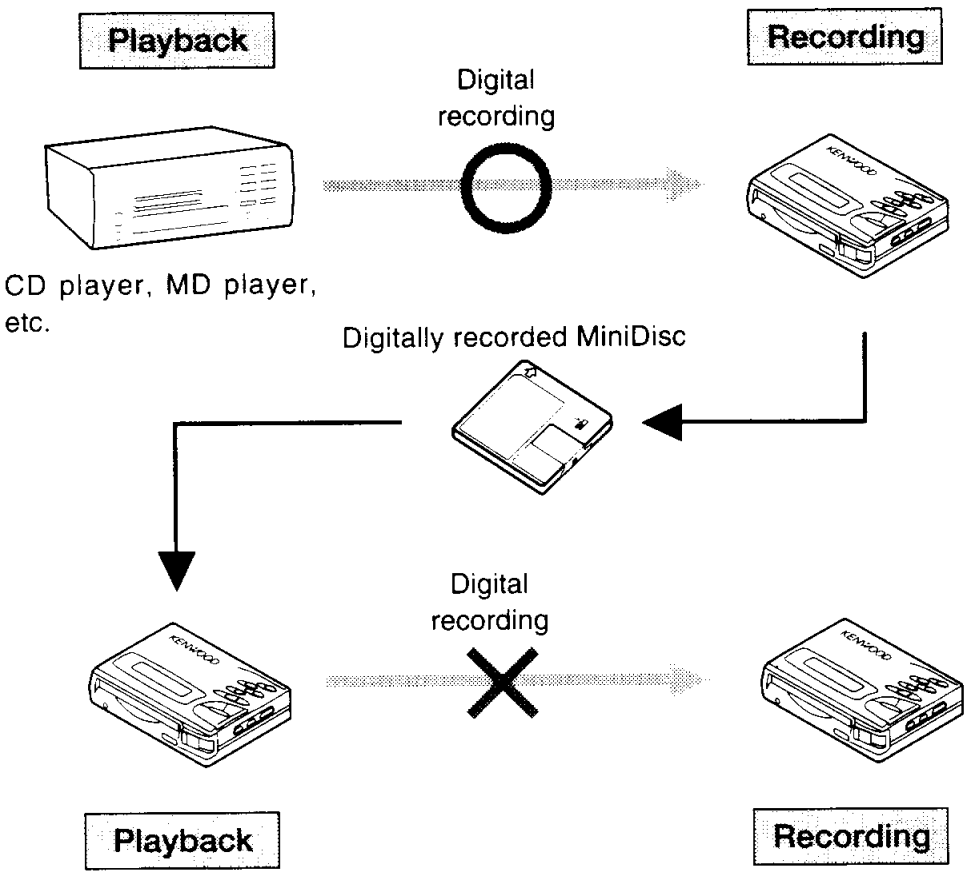
Avoid air bubbles and turned-back corners.

- If the label is not properly affixed, peel it off carefully and affix it properly.

ENGLISH

Digital Recording Restrictions (SCMS)

- SCMS (Serial Copy Management System) is a standard that, for copyright protection, limits digital recordings that can be made with digital audio equipment to first-generation recording only.
- According to the SCMS standard, a digitally recorded audio signal cannot be recorded again digitally.



Restrictions Related to MiniDisc Standards

MiniDiscs are recorded with a different method than that used for conventional cassette tapes. The following symptoms may arise, therefore, because of the recording method, editing method, and so on. These symptoms arise because of system-related restrictions and do not indicate any malfunction.

Symptom	Cause
• "DISC FULL" or "TOC FULL" is displayed even though the MiniDisc's maximum recording time has not expired.	• Regardless of recording time, recording is not possible if the maximum number of tracks has been reached. (Maximum number of tracks: 254) In the case of a MiniDisc that has been repeatedly recorded and edited or a MiniDisc that is scratched or damaged, recording is not possible even if the maximum number of tracks has not been reached.
• "DISC FULL" is displayed even if the number of tracks and recording time do not satisfy the maximum number of tracks.	• If the MiniDisc is scratched or damaged, the damaged part automatically becomes unrecordable, resulting in a reduced recording time.
• No matter how many short tracks are erased, the time remaining for recording does not increase.	• When the remaining time on a MiniDisc is displayed, tracks that are shorter than 8 seconds may not be counted as tracks.
• Tracks cannot be combined by editing.	• With MiniDiscs that have been repeatedly recorded and edited, the Combine function may not work.
• The total of a disc's recording time and remaining time does not agree with the total available recording time.	• Normally, the minimum recording unit is a cluster (a division of a MiniDisc about 2 seconds in length). Since tracks that are not even that long occupy 2 seconds of space, however, the actual time available for recording may be shorter than the remaining time that is displayed. Also, if the MiniDisc is scratched or damaged, the damaged part automatically becomes unrecordable, resulting in a reduced recording time.
• Audio skips during Fast Forward/Reverse operation of a recorded track.	• The audio will skip during Fast Forward/Reverse operation of a MiniDisc that has been repeatedly recorded and played back.
• A track number is assigned in the middle of a track.	• If the MiniDisc to be recorded is scratched or dirty, a track number may be assigned to an undesired location.

Meaning of display messages

Messages	Meaning	Remedy
NO DISC	• The disc has not been loaded.	• Load the disc.
DISC ERROR	• The disc is damaged.	• Reload the disc or replace it.
BLANK DISC	• Nothing is recorded.	• Replace the disc with a recorded disc.
00Tr 0:00	• Music is not being recorded.	
? DISC	• A disc which contains data other than music was played.	• A disc which contains non-music data cannot be played.
	• There is an error in the signal from the disc.	• Replace it with a nother recorded disc.
TOC ERROR	• A large portion of the disc has been damaged.	• Replace it with a nother recorded disc.
UTOC ERROR	• A large portion of the disc has been damaged.	• Replace it with a nother recorded disc.
	• There is an error in the recorded signal.	• Replace it with a nother recordable disc or use the ALL ERASE function (page 57) to erase the signal error and then try recording again.
DISC FULL	• The disc is out of recording space.	• Replace it with another recordable disc.
PB DISC	• You tried to record on a playback-only disc.	• Replace it with recordable disc.
PROTECTED	• The disc is write-protected.	• Move the write protection knob back to its original position.
TOC FULL	• There is no space left for recording character information (track names, disc names, etc.).	• Replace it with another recordable disc.
Can't REC	• Recording cannot be performed correctly due.to vibration or shock in the unit.	• Re-record or replace it.
Din UNLOCK	• Poor connection of the digital cable.	• Connect the digital cable securely.
Can't COPY	• No copy can be made because of the SCMS copyright system.	• Record using the analog cable.

ENGLISH

Messages	Meaning	Remedy
Can't EDIT	• A track cannot be edited.	• Change the stop position of the track and then try editing it.
TEMP OVER	• The temperature is too high.	• Turn off the power, and wait for a while.
BATT EMPTY	• The rechargeable battery or alkaline batteries have run down.	• Charge the rechargeable battery or replace the alkaline batteries (or use the AC adaptor for power.)
LOCKED LOCK ERROR	• The EJECT knob was moved during recording or editing.	• Turn off the power and remove the MiniDisc.
HOLD	• The unit is in the malfunction prevention state.	• Return the HOLD switch to its original position.
SORRY	• Since a track number is currently being located or written to, the unit cannot accept your command.	• Wait for a while and try to the operation again.
DEFECT	• Since this disc has scratches on it, the recording operation was skipped.	• If the sound you hear is not right, replace the disc with another recordable disc.
POWER ?	• Improper power is being supplied.	• Use one of the specified power sources.
Tr. Protect	• The track has been protected from being erased.	• Edit the track with the device on which it was recorded.
SYSTEM ERR	• You have come to the conclusion that the unit is out of order.	• To have it repaired, go to the distributor where you purchased the unit.

If the Power Fails While Recording Is in Progress

If the power fails while recording is in progress, the TOC data will not be written to the disc, so the recorded contents will be lost.
In the case of a recording added to a MiniDisc with previously written TOC data, the additional recorded part will be lost.

The loss of a valuable recording can be prevented by using charged rechargeable batteries, even when operating the unit with the AC adapter, because operation will automatically switch to the batteries in the event of a power failure.

What appears to be a malfunction may not always be serious. If your unit should not perform as expected, consult the table below to see if the problem can be corrected before seeking help from your dealer or service representative.

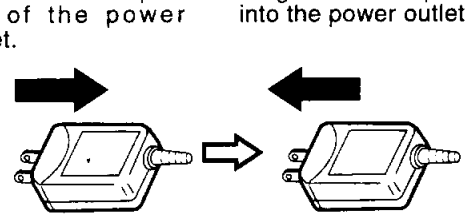
Troubleshooting

Symptom	Cause	Remedy
Unit fails to turn ON.	• The AC adaptor is disconnected. • The battery is depleted. • **HOLD** status is engaged.	• Insert plug securely. (P13) • Charge the battery. (P13) • Deactivate **HOLD** status. (P60)
There is no sound.	• The volume is at minimum level. • The remote control or headphones are disconnected.	• Increase the volume. (P17) • Insert plug securely. (P16)
The unit does not respond to key operation.	• **HOLD** status is engaged. • The battery is depleted. • The remote control or headphone plug is not securely inserted.	• Deactivate **HOLD** status. (P60) • Charge the battery. (P13) • Insert plug securely. (P16)
Sound skips.	• The battery is depleted. • The unit is in a place where there is excessive vibration.	• Charge the battery. (P13) • Move the unit to a place where there is little vibration. Or set to "**Psave OFF**" . (P62)
The MiniDisc cannot be removed from the unit.	• Track numbers and other written data are being written to the disc ("**TOC EDIT!**" is displayed). • Recording or editing is in progress.	• Remove the disc after "**TOC EDIT!**" is no longer displayed. (P37) • Remove the disc after recording or editing has been completed and the power has turned off.
Recording or editing is not possible.	• The MiniDisc's erase protector is in the Open (engaged) position. • Other equipment is not properly connected. • The AC adapter was disconnected or a power failure occurred during recording or editing. • The **HOLD** function (which prevents accidental key operation) is engaged.	• Move the erase protector knob to the Closed position. (P36) • Check connections. (P29) • Record or edit again. • Cancel the **HOLD** function. (P60)

Resetting the unit

The unit may not operate normally due to faulty handling or adverse power current effects caused by impact, excessive static electricity load, or power drop during use.
If this occurs, take the following measures.

1. Pull the AC adaptor out of the power outlet.
2. Remove the rechargeable battery.
3. Wait about 30 seconds.
4. Plug the AC adaptor into the power outlet and operate the unit.



[A]
Additional Recording 36
Adjust the volume 17
ALL ERASE Function 57
Analog Connection 28
Assigning a Disc Name 47
Assigning a Track Name 49
Assigning Track Numbers and Marks 38
ATRAC 62
Auto Mark Function 38
Auto Play function 16
Auto Power Save Function 62
Avoiding Faulty Operation 60

[B]
Battery life 14
Beware of condensation 9

[C]
Changing the tone (BASS BOOST) 23
Changing to Lower Case 46
Charging the rechargeable battery 13
Charging time 14
Checking the remaining battery life 14
COMBINE Function 53
Combining Tracks 53
Copying Written Data 58
Correcting a Disc Name 50
Correcting a Track Name 50

[D]
Digital Recording Restrictions 64
DISC NAME Function 47
Disc's Remaining Time 40
Displaying the Disc Name 25
Displaying the Track Name 25
DIVIDE Function 52
Dividing a Track 52

[E]
Editing 42
ERASE Function 56
Erase protector knob 36
Erasing All Tracks 57
Erasing One Track 56

[F]
For use in a car 15

[H]
Handling of Mini Disc 63
High-Speed Track Selection (TOC) 62
HOLD 60

[I]
Initiating Fast Play Operation 24
Inserting a space (character) 46

[M]
Manual Recording 30
Meaning of display messages 66
Mike Synchro Record level. 35
Mike Synchro Record) 34
Monaural Extended Mode 40
MOVE Function 54
Moving Tracks 54

[N]
NAME STAMP Function 58

[O]
Operating Tone (Beep) 60
Optical Digital Connection 28

[P]
Pausing the Recording 31
Playback (Basics) 16

[R]
RANDOM playback 22
Re-Recording 41
Recording (Basics) 30
Recording level 30
Recording Monitor 36
Removing the MD 19
REPEATED playback 22
Resetting the unit 69
Restrictions Related to Mini Disc

[S]
Standards 65
SCMS 64
SEARCH 21
Selecting Characters 46
Setting the Date and Time 26
SKIP 20
Sound Compression Technology 61
Sound-skip prevention memory 62
Stop recording. 31
Synchro Recording 32

[T]
TIME AUTO MARK 39
To pause playback 18
To stop playback 18
To turn power off
(after playback) 18
To turn power off.
(after recording) 31
TOC 37
Tr Name Function 49
Types of Connections
for Recording 28
Types of MDs 61

[U]
Using the AC adaptor 13
Using the Unit with
Auto Play Canceled 19

[W]
What is a Mini Disc 61
Writing TOC Data 45

ENGLISH

System ..... MiniDisc digital audio system
Read method ..... Noncontact optical reading system (semiconductor laser)
Rotating speed ..... About 400 - 900rpm
Sampling frequency ..... 44.1kHz (32kHz and 48kHz are converted to 44.1kHz and recorded)
Audio compression ..... ATRAC (Adaptive Transform Acoustic Coding)
Number of channels ..... Stereo: 2 channels
Monaural Extended mode: 1 channel
Recording method ..... Magnetic modulation overwrite system
Error correction method ..... AC/RC method
Frequency response ..... 20 Hz to 20,000 Hz (± 3 dB)
Wow & flutter ..... Less than unmeasurable limit (± 0.001 % W.PEAK)
Input jack ..... Line/optical combined input x 1; microphone x 1 (plug-in power type)
Output jack ..... Headphone/remote control combined jack
Input sensitivity : MIC H ..... 0.25 mV/10 kΩ
MIC L ..... 2.5 mV/10 kΩ
LINE ..... 100 mV/20 kΩ
Output level : Phones ..... 10 mW + 10 mW (Maximum output level /at 16Ω)
LINE ..... 350 mV (at -12dB, standard output/ 50 kΩ)
Power source ..... DC 5 V : AC adaptor
(AC 120 V, 50/60 Hz)
DC 3.6 V : Lithium ion battery x 1
DC 5 V : Car battery adaptor (sold separately, DC-C50)
DC4.5 V : Dry batteries case (sold separately, BC-F5)

Battery life ..... (fully charged batteries)

Type of battery	Continuous playback time	Continuous recording time
Rechargeable battery only	approx. 9.5 hours	approx. 7 hours
Alkaline batteries	Approx. 24 hours	Approx.17 hours
Rechargeable battery + Alkaline batteries	Approx. 35 hours	Approx.25 hours

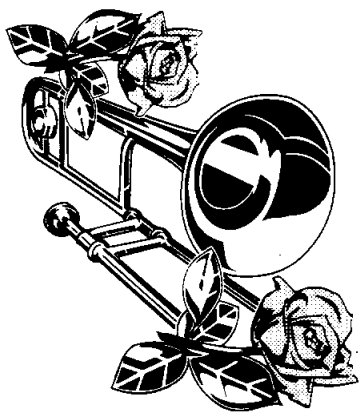
(Continuous recording time: based on analog input and recording monitor volume level of "0")
(Continuous playback time: based on volume level of "VOL 20")
- Time of use may vary depending on battery maker, battery type, use environment, and temperature.

Dimensions (W) x (H) x (D) ..... 109.2 mm x 29.8 mm x 81.3 mm
(4-5/16" x 1-3/16" x 3-3/16")
Weight (Net) ..... Approx. 270 g (0.59 lb)
including the accessory rechargeable battery
Approx. 222g (0.49 lb)
not including the accessory rechargeable battery

Notes

1. KENWOOD follows a policy of continuous advancements in development. For reason specifications may be changed without notice.
2. The full performance may not be exhibited in an extremely cold location (under a water-freezing temperature).

Memo



ENGLISH

KENWOOD

For your records

Record the serial number, found on the back panel of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

Model _____ Serial Number _____